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CLINICAL LECTURES.

THE EXAMINATION OF YOUNG GIRLS.

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CLINIC.

Gentlemen:—This is a subject of considerable practical importance, on which I hold decided views which may seem at variance with some which you have heard expressed. I believe that a young unmarried woman ought not to have a pelvic examination and treatment unless in the judgment of the physician it becomes absolutely necessary; this should be the last step in the conduct of the case, not the first.

To illustrate my meaning, allow me to refer briefly to a typical case occurring in my own practice. A young lady of more than ordinary intelligence, but of nervous temperament, was sent to me recently by her physician, who inferred from her symptoms that she had some local trouble and desired me to make an examination, to which the patient was prepared to submit if necessary. She complained of backache, leucorrhœa and frequent and painful micturition, but had no severe localized pain, her menstruation was regular and painless and she presented anything but the appearance of an invalid. Reviewing her former history, I learned that last summer she had spent much of her time in the saddle on a Western ranch, sometimes riding forty miles a day without the slightest discomfort—a sufficient indication that she had no chronic uterine trouble. During the winter her habits had been sedentary, she

had had obstinate constipation in consequence and defecation was followed by a throbbing pain in the rectum which suggested the possible presence of either a fissure or hæmorrhoids, which alone might account for all her pelvic symptoms. To her great relief, I told her that I preferred to try the effect of general treatment before making an examination. She had been using vaginal douches under the direction of her physician, but on inquiry, it was easy to understand why they had done no good, as she had used a small quantity of warm water while in a stooping posture. I directed her how to take copious injections of *hot* water, while only in the recumbent posture, with the hips elevated. She was to recline for an hour afterward. A laxative was prescribed with the advice that her bowels should be kept quite loose. After defecation hot applications were to be used, with a rectal suppository containing cocaine and a mild astringent.

The vesical symptoms were clearly of reflex origin, as the patient stated that they were always worse when her bowels were most constipated. There were no evidences of cystitis (the urine was examined and found to be normal), yet I have found that in these cases there is usually slight inflammation at the neck of the bladder, which is relieved by rendering the urine as bland and unirritating as possible. The simple remedy which I suggested was flax seed tea, containing a little cream of tartar, of which she was to drink three or four tumblerfuls daily. Having given careful directions with regard to diet, exercise, etc., I told the young lady to report in a week, when she was entirely relieved of the backache, leucorrhœa and vesical trouble, though the rectal symptoms still persisted and will probably require for their cure forcible dilatation of the sphincter ani under

anæsthesia, at the same time I shall be able to make a thorough vaginal examination.

My reference to anæsthesia has led me to the point which I wish to make and it is this: When you have a young girl with well-marked pelvic symptoms of long standing insist upon an examination under ether. Aside from the fact that you are able in this way alone to make an exact diagnosis, you may under some circumstances complete the treatment at the same time and thus save both the patient and yourselves further trouble. A contracted os may be dilated, an anteflexed uterus straightened, or a displacement corrected and a pessary inserted, while the presence of a diseased ovary or tube, or of a small intra-pelvic neoplasm, can be clearly determined and a decision reached regarding the necessity for a radical operation. Now there is a more important advantage still in such an examination—the elimination of nervous shock to the patient. It is inexplicable to me, the indifference which some men display in wounding the sensibilities of pure young maidens. How little do we realize what a vaginal examination means to them! It seems a trivial matter to us, but it is a dreadful experience for the patient. I am now attending a young woman who received such a nervous shock from such an examination that she has never recovered from it.

A case which made a strong impression on me in my student days and possibly led me to adopt such strong views on this subject was that of a highly educated governess, whose reduced circumstances compelled her to enter a hospital in which I was an interne. She was examined under ether and was found to have anteflexion with prolapsed ovaries. It was necessary to excise her unusually thick, rigid hymen preparatory to local treatment, which was conducted regularly two or three times a week for a couple of months. Each time that she was treated she returned to her room in such a nervous condition that she hardly recovered before she was obliged to go through the same experience again. It is needless to say that, so far from receiving any benefit from the local treatment, she left the hospital in a far worse general condition than before. The poor girl assured me that her experience seemed like a hideous nightmare. It seemed to her sensitive mind that she had

suffered a shock to her moral, as well as to her physical being from which she could never recover. Death, she said, would have been preferable to the constant wounding of her delicacy.

Now, leaving what you may regard as the purely sentimental side of the question, let us look at it from a practical standpoint. Let us consider for a moment how much information can be obtained by examining a young girl at one's office. We assume that she has the familiar symptoms backache, leucorrhœa and so-called obstructive dysmenorrhœa, *i. e.*, colicky pains in the uterus immediately preceding the menstrual flow and relieved by the passage of clots. The natural inference is that she has anteflexion. We place her on her back on the table and proceed with the ordinary routine. The patient contracts her muscles rigidly and the finger is introduced only with the greatest difficulty and pain to the patient. The cervix is finally reached and the examiner, if experienced, recognizes the presence of the flexion the presence of which he had already suspected. He essays to practice the bimanual and at once finds how different the conditions are from those described in the books. The abdomen is like a board and every attempt at making deep pressure with the external hand is met by a spasmodical contraction of the recti, which baffles him. I am not describing an exceptional case, but such a one as we ordinarily encounter. Turning the patient on the side, it is now possible to insert the finger farther and thus to make out the position and probable size of the uterus, and under favorable circumstances, a prolapsed ovary. But the sensitiveness is so general and the patient is so distressed by pressure on the hymen, that it is impossible to locate exactly the seat of greatest pain. The smallest sized Simm's speculum is now introduced, not without great pain and resistance, and we catch a passing glimpse of the cervix. An attempt to pass a sound develops such a spasmodic contraction at the os internum that we are very apt to make an erroneous diagnosis of stenosis when no true stenosis exists. Now, is this a satisfactory examination, on the strength of which you would be willing to make a private diagnosis and perhaps recommend the performance of a serious operation?

When it comes to the question of regular treatment under these condi-

tions, I have never thought that I accomplished much. The possible effect of an occasional application of iodine and the introduction of one or two glycerin tampons being offset by the general disturbance of the nervous system incident to the manipulations.

To-morrow I expect to examine under ether with a colleague, a young lady whose symptoms clearly indicate local trouble, although the doctor has wisely tried general treatment, galvanism, etc., for several months with benefit before resorting to an examination. Since the symptoms are typical of the class in which some local trouble may be inferred, I mention them briefly: Constant backache, preventing much walking, profuse leucorrhœa, pain in the left ovarian region radiating down the thigh, dysmenorrhœa sufficient to keep the patient in bed for a day or two every month, with a flow too profuse for a young girl; added to these are well-marked reflex neuroses, strongly suggestive of ovarian disease. We expect to find an anteflexed uterus, possibly a prolapsed ovary, and shall be prepared to divulse and curette while the patient is under chloroform. Of the lesser degrees of pelvic trouble I have already spoken and you will pardon me for again insisting on the importance of recognizing the difference between the two.

These cases are very common in New York, occurring often among girls of sixteen to eighteen, attending the higher schools and colleges, anxious to keep up with their classes and to finish the course, straining every nerve in school and out, studying from an early morning hour until ten o'clock or later at night; continuing this every day, without rest even during the menstrual period. The bowels are always loaded with hard feces, the girl has headache; when she feels badly she must still continue her tasks, she has no time for rest. To treat such a patient once or twice a week for backache, leucorrhœa, and dysmenorrhœa by applications to the cervix and tampons, would be as sensible as to treat her for heart or lung trouble, of the existence of which we only suspected. You would accomplish nothing. Her faulty habits of life, her neglect of the rules of hygiene entirely offset anything in the way of local treatment. I had such a patient from an intelligent family; her parents wished me to examine

her, but I declined and lost the case. I told her parents that I thought the trouble was due to hard work at school, faulty habits, bad diet and dressing and to constipation; that I did not think the slight dysmenorrhœa, leucorrhœa, and backache of which she complained would be benefited by local treatment. I wanted them to take her out of school entirely, and to put her on selected diet, tonics, and electricity. She was quite anæmic. They were not satisfied to give this a fair trial and I next heard of her going to a lady physician, who had been treating her three times a week for three months for anteflexion. Now, I do not believe that the girl had pathological anteflexion at all. The best proof of it was that she was cured without operation and became pregnant within a month after she was married, and that the marriage occurred shortly after she suspended treatment. Now, these are just the cases which an unscrupulous man may make a good deal of money out of; but, happily, to make money is not the only object of the practice of medicine. The first object is to try to benefit the patient, and you certainly will not do that, but may do a great deal of harm, by immediately starting upon a course of local treatment in young unmarried women.

What will take the place of local treatment? You always have electricity to fall back on. It need not be employed within the vagina nor is it necessary to have all the expensive apparatus described in the books. A milliampère-meter, for instance, can be dispensed with. When observing Apostoli at work I noticed that he paid quite as much attention to the sensations of the patient as to his milliampère meter. In applying the galvanic current, then, you will practically come to give more heed to the sensations of the patient and the after effects of the application than to the exact dosage. The class of cases under consideration are much relieved by placing one electrode over the sacrum and the other over the ovarian region, passing a current of moderate intensity, just sufficiently strong to cause a warm, burning sensation. This simple treatment repeated twice or three times a week often produces a remarkably beneficial effect. I am unable to say just how the effect is brought about. There have been a good many learned explanations of

the action of electricity on the pelvic organs, but they are like many other theories in medicine, they seem to be only as a matter of fact electricity does remove pain in those cases in which there is no serious organic change. Dysmenorrhœa is often entirely relieved. But you must tell the patient in advance that it will be necessary to give it a fair trial, and not to expect marvelous results from one or two applications.

I find that general practitioners often fail to recognize clearly the indications for the use of the different currents, made clear to your mind if you remember that the galvanic current is in general sedative, the faradic stimulating. If you want sedation (as in ovarian pain), apply the galvanic current. If there is non-development, amenorrhœa, a small infantile uterus or subinvolution you want stimulation, which is obtained by the frequently repeated shocks of the faradic current. In such a case put one pole over the sacrum and the other on the abdomen over the fundus uteri. If you make intra-vaginal application place one electrode against (or within) the cervix, the other on the abdomen over the fundus.

Regarding general treatment, iron is usually indicated, and I often use manganese. There is a preparation called the pepto-manganate of iron which acts well. I regulate the bowels with a mild laxative, usually cascara. The patients should bathe regularly. They may take a cold sprinkle, followed by a good rubbing. Regarding vaginal douches, I would refrain from using them as long as possible in the case of young girls. It is unfortunate to have them begin to tinker with themselves, unless it be necessary for a profuse leucorrhœa, which will not stop after general measures have been tried. When indicated, the mother can instruct the patient how to use the douche.

The proper regulation of the bowels is important. It is not sufficient to simply prescribe a laxative. The large intestine should be thoroughly cleaned out. It is common for women to come to the clinic and say that their bowels move regularly and yet on investigation to find large fecal masses in the rectum. These masses may press the cervix forward, and a prolapsed ovary may be constantly compressed by the distended rectum, causing much pain and aggravation of the trouble.

The rectum should, then, be emptied every day, not alone to obviate mechanical pressure, but also pelvic congestion.

It is important to have the patient rest during the menstrual period. Mothers generally seem to be strangely indifferent to the sexual hygiene of their daughters. Some mothers will come to the physician and complain that their daughters will not remain quiet during the periods; that they go to parties, to dances, skating, coasting, and one young woman told me that she went bathing during a menstrual period. It shows either gross carelessness or dense ignorance on the part of mothers to allow their daughters to so flagrantly violate health laws. I do not think that a woman is fit to bring up a girl if she is not sufficiently well informed to instruct her about the ordinary principles of physiology. Many of the things which girls do during the menstrual period invite attacks of peritonitis. Every woman should keep quiet the first day of the period, and lie on the sofa or bed.

These simple rules fragmentary as they are, I think, will in the majority of cases do away with the necessity for an examination of young girls. I feel very strongly upon the subject, for I think it is a very important one. In the routine of a clinic, physicians are apt to have girls who may come for the first time, put on the table, and submitted to an examination without stopping to think of the consequences. There is something more to take into consideration than the mere question of a diagnosis. In the late Professor Flint's classical work it is stated in an introductory chapter that the first thing which the doctor should look to is that his medicine shall do his patients no harm; next, that it does them some good. That applies to all therapeutics local and general. Stop and consider whether what you are about to do will in any wise injure the patient mentally or physically, and then whether it will do her any good. With that idea in mind, I advise you to put off an examination in girls as long as you can consistent with the symptoms. If the symptoms are such that you feel it is not doing her justice, that it is not scientific to longer defer it then make the examination under an anæsthetic. The patient will rarely object it, and the parents will not if the situation is properly explained.

COMMUNICATIONS.

PNEUMONIA AND ITS TREATMENT.*

By HIRAM CORSON, M. D.

PLYMOUTH MEETING, PA.

What is pneumonia? That question correctly answered, we will be prepared to treat it. Professor George B. Wood, of the University of Pennsylvania, one of the most accurate describers of disease and a practitioner of great eminence, to whose graphic descriptions of disease many of you have listened, says in his *Practice of Medicine*, that, "pneumonia has three stages, and is universally applied to inflammation of the lungs. In the first stage the lungs are merely engorged with blood, and the air-cells filled with a sero-mucous, somewhat bloody effusion. In the second stage a plastic extravasation has taken place, and the cells are filled with more or less concrete and bloody lymph. In the third stage the place of the plastic secretion has been supplied by a purulent fluid." Dr. Wood was a truthful man, had great opportunities in the Philadelphia Hospital to see the condition of the lungs in the different stages described by him, for they may all be present in a lung at the same time, when the disease continues to embrace fresh portions of it. In that I doubt not he is correct. But as the subject which now engages our attention is one of great importance, I beg you to bear with me while I quote from another author. Dr. G. R. Martine, of Glens Falls, N. Y., in a paper read before the American Medical Association in June, 1889, published in its journal September, 1889—a paper remarkable for its accurate description of the disease as it exists in cases involving much of the lung, and for erroneous deductions in relation to treatment—thus speaks:

"The first abnormal symptoms, after the premonitory chill, are the quickening of the pulse and the subsequent increased flow of arterial blood. Now, if we could take a microscopic view of the minute arterial ramifications in the lung structure, we would discern a distention in the caliber of the air-vessels in order to accommodate

the augmented flow of blood; and if we would glance at the veins we would observe the plasma layer rapidly filling with white corpuscles, and the walls of the veins, irritated by the friction of increased circulation, would exhibit, here and there, white corpuscles adhering to their tenacious sides and finally penetrating their walls. A glance at the capillaries would show not only the white, but also the red corpuscles forcing their way through the overstrained capillary walls until the surroundings become engorged by their extravasation, and hepatization has commenced." Now, if we bear in mind the condition of the lungs as described by the writers, we must believe that pneumonia is first a congestion, then an inflammation, and if that be not arrested suppuration takes place. Dr. Wood says: "It has been doubted whether a cure is ever effected in this last stage."

We are now brought face to face with the disease. Is there anything we can do to remove the congestion? The patient has been sick less than twenty-four hours, he is not yet expectorating bloody sputa, and many of the opponents to blood-letting say this disease cannot be aborted; that, like measles, it has a course to run, despite all interferences; that it is a constitutional disease, and that if we can prevent the congestion from being too suffocative, the inflammation from involving too much of the lung, we may let it run its course. The members of our profession are divided into two classes: those who believe that the disease may be aborted, *i. e.*, arrested in the congestive stage if early called, and in the stage of inflammation before suppuration has taken place; and the much more numerous class, who believe that it cannot be aborted; that a case, even if it be in its incipency, must go on—should be watched by the physician, and shorn of its power to take life, but be allowed to go on until a crisis is reached after a positively fixed number of days. Physicians of the first class aim to relieve the overloaded and suffering lung by the abstraction of blood, by means of the lancet, from the veins of the arm; and those of the second class, who boast that they "never bleed" in any disease, depend on giving relief by reducing the increased action of the heart with medicines which have that effect. But the members of this latter class are greatly divided in opinion as to

*Read before the Philadelphia County Medical Society, April 18, 1892.

the proper medicine to be used to hold the heart in check; what one regards as being very useful and safe, another considers dangerous—more dangerous than the disease, and withal inefficient—yet all speak from experience, each one with his remedy. Experience is a harmful thing, as a reason for continuing to practice a certain course, unless it has been successful experience. It reminds me of a case: I had attended a woman in her confinement, and, as she expected to have the child raised by hand, as the phrase goes, and had read my paper on "Food for Infants," so, when she appeared, I said: "Nurse, do you know how to feed a child so as to rear it without the mother's milk?" Oh, yes! I have had experience in doing that; my sister had three that I had to raise that way." "Well, how did they come on?" "Oh, very well; one of them lived until it was six months old." Who among us but can look back on measures which we practised, and which we believed indispensable because we had proved them, as we thought, by a long experience, but which we now see were not only useless but injurious. This, then, successful experience in the treatment of pneumonia is what we should follow. The absence of success, the fearful mortality attending the arterial sedative practice of the "no blood to spare" party; the immediate relief, the successful arrest of pneumonia by blood-letting, during a whole century, should cause the opponents to venesection to cease their abuse of those whose successful experience in the use of it has been testified to by some of the most eminent men of this city and this country. A few weeks ago I was told by a gentleman holding a high State office, that a physician of whom he inquired concerning the recent death of a prominent man, replied: "Oh! he was murdered by blood-letting." Does this man, who speaks so boldly about a measure of relief of which he knows nothing from actual experience, who never used the lancet in his lifetime, denounce Prof. George B. Wood, Physic, Parrish and the elder Hartshorne, Chapman, Samuel George Morton, Ezra Michener, Prof. Henry H. Smith, the Atlees—John and Washington—Traill Green, Henry Hartshorne, Jackson of Northumberland, N. S. Davis, Prof. S. D. Gross, and hundreds of others who could be named, as conscientious as himself and far

more truthful? We have borne this stereotyped abuse long enough. Look at the terror spread over the country now, when these pumerous deaths of the best of our people are every day announced, though all were in the hands of practitioners skilled in arterial sedation. Let us now see what the opponents of blood-letting resort to, to save the sufferers from death in this disease. From what I have learned of the present teachings in our colleges, and by conversations with practitioners, the main object is "to keep down the pulse"—that is the phrase. To do this, the most approved medicine is the fluid extract of *veratrum viride*.

"The object aimed at," says Dr. Martine, "is to hold the pulse below eighty;" and adds, "*that* is not only what should be done, but what *must* be done to save life." I know full well *that* is not necessary. Scores of times, after I have bled freely, with great relief to the patient and arrest of the disease, the heart, though tamed by the bleeding, continued its pulsations at from 80 to 100 per minute, or sometimes even more for two or three days, and yet the convalescence went on. Again, he says: "With what remedies do I hold the pulse at this point (below eighty)? and adds, "*veratrum viride* seems to have served one best." To this, Dr. H. A. Hare, who was present at the reading, replied: "A great mistake is made in saying use cardiac sedatives in pneumonia, without recognizing the fact that they are to be used only in the first stage, before congestion has gone on to consolidation; the man who gives such drugs at the middle or end of an attack of pneumonia, might as well stab his patient. Digitalis is to be used at such times." It therefore appears that it is only in the congestive stage that *veratrum* is to be used. If this be true—and doubtless it is based on experience—how many patients have been sent to their graves by this much-used medicine! for well do we all know that it is the most used of all the arterial sedatives to keep down the pulse. And even Dr. Martine has peremptorily declared that it must be kept down, and that *veratrum viride* seems to have served him best. But it is not only Dr. Martine who disregards the stage of the disease, and uses it in all stages if the pulse is above eighty. I have long believed that nearly all the cases of pneumo-

nia which terminated in death within four days, and I know several such were hurried there by this patent and dangerous drug. Dr. I. E. Atkinson, of Baltimore, followed Dr. Hare, and said that "the use of veratria in the treatment was new; it had been several years under trial, and had not received general acceptance." If Dr. Hare's utterance be true, then *veratrum viride* can scarcely be used at all without killing the patient, for a physician is seldom called until the congestion has passed into the second stage, when, according to Dr. Hare you might as well stab the patient as to give it. How unerring must be the diagnosis, in order that this medicine may be given without risking the life of the patient. I have inquired of many of the "no blood to spare" class and have rarely found two that have the same treatment. Those who use aconite are afraid to use veratria, while the latter regard aconite as being more dangerous and less efficient. Those, too, who use digitalis are afraid of the two drugs just named, and those who give two drops every two hours denounce others who give large doses of it (10 to 20 drops, frequently repeated) as pursuing a most dangerous practice. Judging from the accusations made by themselves against each other, what safety is there to the patient? The answer comes in saddest tones from homes made desolate by dangerous arterial depressants. To the two classes of opponents to blood-letting spoken of, there are others which should have a passing notice: first, those who rely on the use of sulphate of quinine to keep down the pulse and to diminish the heat of the body. While quinine is, in malarial diseases, an unrivaled medicine and has done valuable service, it is useless, if not really most injurious, in the treatment of pneumonia and other inflammatory diseases. We should feel greatly indebted to Dr. Horatio C. Wood for the experiments which proved to him that even very large doses of that medicine cannot hold the temperature of the body at a low figure. There was so much stress laid on the importance of preventing heart failure, by keeping down the temperature by means of quinine above all other medicines, because of its tonic powers, that Dr. Ripley, the two Drs. Jacobi and three other physicians of New York City made careful and repeated experiments to deter-

mine the value of the drug in that respect, and demonstrated beyond cavil that it is never useful, and often greatly objectionable—really injurious—in the treatment of pneumonia. I have often felt exceedingly thankful to Dr. Wood and the New York doctors for their careful and effective labors in that direction, and greatly amazed that, in the face of the assertions that quinine is useless in pneumonia to effect the purpose for which it is used, some persons still persist in its use. Many lives have thus been lost. The second class of those who fraternize with the arterial sedative practitioners is composed of the whiskey or stimulant practitioners—the physicians who see typhoid and blood-poison symptoms in all diseases. I will spend but little time with them. They are belated people clothed in, and proud of, the cast-off garments of progressive physicians. Let us look calmly at this subject. Are there physicians here who can say that there are medicinal properties in whiskey or in brandy which, in either large or small doses, warrant us in trusting the life of a patient to their action? It is a serious thing to experiment with human life. No means but those which have proved successful in numerous cases should be used when our patients are struggling for breath, and death hovering over them. There is nothing more saddening to me in the sick-chamber than to see a physician forcing alcoholic drinks on the dying patients, and yet it has been done countless thousands of times, and now oftentimes they are used in the very earliest stages of pneumonia. Dr. N. S. Davis does not believe them essential in any disease. If, then, arterial sedatives, quinine, and alcohol are not adapted to relieve the congestion and inflammation of the lung, which constitute pneumonia, is there any remedy for that now fatal disease? We know that there is, but not from an experience like that of the nurse already named, nor of another one, greatly experienced, of whom allow me to speak. I was called to a child, lying on the lap of a friend, "because she had had experience with such cases." I said, "The child seems very sick." "Yes," she replied, "it has summer complaint, and it will die." "How do you know it will die?" "Oh! I have had experience, I had ten of them with it." "All your own children? did they all die?" "Yes." "Did you have the same

doctor for them all?" "Yes." "Well, your experience is worth nothing." I treated the child, and, to her disgust, it was soon well. Her experience is a fair type of the experience of those physicians who go on with the same fatal treatment, lose one patient after another, and speak of "experience" in treating the disease.

But now a word about those who "murder" their patients by bleeding them. What are the objections urged against blood-letting? and by whom? The first objection is, "No one has any blood to spare." If this be true, then it embraces all other objections, and none need be named. This certainly means that in health as well as in disease, the loss of even a small quantity of blood would be injurious to the loser of it. It means more than that—means, as is boldly asserted, that it is a permanent injury to the body, the bad effect of which is seen in the permanently weakened system of the person. Thousands of facts disproving this, and which are daily before our eyes, count for nothing. One would suppose that if half a dozen, or even one, of the respectable, truthful men here should declare that he had often bled persons in various diseases with the greatest of benefit to them, nothing more would be needed to prove the falsity of the declaration, "No blood to spare"—a cry so senseless, so false, that no decent man should utter it.

The very first act of these objectors after the birth of a child, in cases attended by them, is deliberately to cut the cord and waste two ounces of blood that ought to have passed into the body of the child.* But there is another objection urged, viz., that even in the earliest stage of the disease under consideration, though some relief may be obtained, no blood should be taken, lest it should leave the patient too weak to resist the exhaustion of a later stage—leave him in a condition in which even whiskey and rich food would, though *pushed*, not be able to save him from death.

Is it, then, injurious to take blood from a pneumonic patient?

This is the cry and the charge of those who have never seen a patient bled, and yet who have known its safety and value to be testified to by some of the most emi-

nent physicians who have ever lived in this century or preceding ones. In my last four papers, published in the *Medical and Surgical Reporter*, I have given a few cases reported by the Conshohocken doctors, which were bled freely, and were so successful that opposition to venesection should be silenced in those who read them. I will now speak of some seen by myself, and in doing so will present some views which I have long held:

On February 16, 1887, I was called to see a physician two days after an acute, serious attack of pneumonia. I found he was under treatment by one "who never bleeds in any disease." He was expectorating the bloody, "rust-colored, prune-juice" sputa, a quantity of it being in the basin; had great oppression and that peculiar sense of great weakness so constant an attendant in pneumonia when the obstruction to free breathing exists. I had to wait nearly three hours for the return of the physician, and when he did come he was opposed to bleeding, and refused to accede to it, but proposed that the patient choose whether or not he would be bled. The patient knew well our different modes of treatment, and promptly said, "I will be bled." I asked the doctor to remain, and, slipping another pillow under the sick man's head, I drew blood until I found the pulse yielding in *force* and knew that faintness was approaching. Withdrawing the pillow to lower the head, I closed the vein and took a seat. In about ten minutes I inquired, "How do you feel?" "I am much relieved; I think it will do me great good. This was at noon. Went again in the evening; he was pretty comfortable, breathed much more easily, and had not coughed up the least particle of blood or rusty sputum since the bleeding. The distended blood-vessels were relieved of their fulness, and "the slow exudation from the inflamed vessels" spoken of by Dr. Wood was no longer forced through their coats. Would one or twenty doses of arterial sedatives have produced that effect? Having bled my patient what next did I do? Nothing, but told him that I would see him in a few hours.

And here let me say that, in the case already alluded to, when I saw by the papers that he had been bled, I said, "In all human probability he will die!" "Why?" was asked. "Because he was

* See Transactions of the Penna. State Med. Soc. for 1872, p. 154.

Timidly bled by one unused to venesection and fearful of it, and because the other depressing, arterial sedative treatment will follow it, and the patient will suffer from their poisonous, depressing effects.

To return to my case : When I saw the patient a few hours afterward I found him pretty comfortable. I directed one Dover's powder, to be repeated in the night, if need be, because of pain. Next day a mild diaphoretic was administered.

Two days after this a physician who, as a neighbor, had given much attention to his sick friend, asked me : How do you find your patient ?" I said : "He is well ; he needs only a few days in bed to regain his strength." I left for home, and he went to the patient and said to him : "The Doctor told me just now that you are well. What was it that cured you ? was it that blood that came from your arm ?" He replied : "The blood did not come from my arm ; it came from here," laying his hand on the affected side. "I felt it going from here as it went into the basin." How strong this testimony, given by a physician who felt in his own person the relief obtained by venesection ! How confirmatory, too, is this of the testimony of Dr. Gross, the elder, who, in a discussion, had in the State Medical Society illustrated the effect of venesection in this way : "Should a man have an inflammation of the conjunctiva, and capillary vessels be so injected that the blood was of a deep redness ; and then he, being in a sitting posture, should be bled largely, the blood would be drawn from the capillaries, and the redness disappear. Just so does it draw the blood away from the capillaries,, of the congested and inflamed lung." Veratum viride in doses large enough to keep the pulse below 80, would not produce the least relief to the distended capillaries. Having bled the patient, if in a few hours there is not much relief, he may be bled again, if needful, and even more than once. But what of local measures ? Do I approve of the poultice or the pads of cotton to envelop the chest ? No. Two years ago, after my criticism of Dr. Wells's paper was published, an aged physician regretted that I had not spoken of the value of "the blister" over the affected part. The subject before me was only that of "Blood-letting : Its Value or Danger." It is the same now, but I may add here that the application of

cloths dipped in ice-water is to the patient the most agreeable application that I have ever used.

Despite the great length of this paper, I beg of you to hear the utterances of one of our most eminent men to his students at his clinic in the University Hospital, and published in the February number of the *International Medical Magazine*, pp. 43-45. Dr. William Pepper stated to his pupils at the clinic, that "the man of twenty-eight years had been well until ten weeks before his admission to the ward, and had during that time been treated by several physicians. On admission, November 5th, his distress was extreme ; he was unable to lie down or recline, and was obliged to remain constantly in a sitting position, but did not get relief from leaning forward." Then follows a long and interesting account of the illness and treatment ; after which follows : "On November 7th, the third day of his stay in the hospital, the symptoms were alarming, with deep cyanosis, labored action of the heart, orthopnea, and high fever, that I had him bled from the arm to the extent of twenty ounces. The good effect of this was immediate, and although cyanotic symptoms returned to some extent on the following day ; a material improvement dated from the time of the venesection." Again the learned professor at great length gives his views of the case, and before closing his paper remarks, January 5th : "He has continued to do well, and is now thoroughly convalescent. Before closing, I would call your attention to the extraordinary effect which followed the abstraction of blood. All of us who saw his condition before the bleeding, and watched the immediate effect of this, were satisfied that his life was saved thereby. I doubt if any other remedy could have acted so promptly and efficiently. It was the observation of such striking results, when bleeding was used in suitable cases, that gradually led our medical forefathers to rely upon it more and more in grave crisis, until its occasional and legitimate use degenerated into almost promiscuous abuse. It is one of the tasks set before clinical medicine to-day to indicate with the greater precision, rendered possible by our improved methods of investigation and more full knowledge of natural history of disease, the exact conditions un-

der which this most powerful remedial measure is to be adopted."

Such are the recent utterances of the able editor of *A System of Medicine by American Authors*, in which is a paper by Alfred Loomis, M. D., Professor of Practice in the University of New York, who believes "pneumonia a constitutional disease, with a local manifestation," and regards blood-letting as a dangerous plan of treatment. Such, too, has been the views taught to large classes of students by Prof. Pepper until he made trial of the remedy. I sincerely hope that Prof. Loomis, too, will make a trial of it hereafter, and be induced, like Dr. Pepper, "to doubt that any other remedy could

have acted so promptly and efficiently."

I cannot be too grateful to Prof. Pepper for his valuable testimony in relation to venesection, and for the hope which he has given us, that hereafter he will not withhold this potential means of relief from those suffering in the grasp of this (now) too fatal affection. It is one of the most remedial diseases when properly treated; but when managed by arterial sedatives and their aids, stimulants and excess of food, a most fatal one. More than sixty-five years of careful, anxious observation of the effects of blood-letting in pneumonia have proved to me that it has no rival as a remedy for that disease. —For discussion, see *Society Reports*.

ON DISEASE OF THE MASTOID PROCESS.*

BY DR. E. S. CLARK,
SAN FRANCISCO, CAL.

I propose to present briefly, a general outline of the conditions, treatment and results of some cases of mastoid affection occurring in my practice the past year and a half and showing the advantage of an early operation. There were sixteen cases treated and of these I operated on fifteen, all resulting in recovery; the other (No. 4) refused an operation and died six days after I first saw him.

The following table* will show at once the status, length of treatment, etc., of each case:

It will be seen from the above, that the average duration of middle ear affection before operation (except in the chronic forms) was about five weeks. In eleven of the fifteen cases operated, the discharge ceased after a few days. In one case only (11) does it still continue, and this is a chronic otorrhoea of twenty years standing. In all but four cases there was obtained communication with the middle ear, allowing me to cleanse the ear thoroughly by syringing through the fistula. This com-

	Duration of otorrhoea at time of op.	Cessation of otorrhoea after op.	Com. with mid. ear closed.	External wound closed.	Condition of memb. tymp. and hearing.	Previous hearing.
N. A. ₁	5 weeks.	2 days.	2 days.	15 months.	good, h = 3 20.	h = 0.
O. B. ₂	10 " *	4 months.	4 months.	4 "	destr. by chronic otorrh., h = 0.0.	h = 0.
G. K. ₃	7 "	2 days.	1 day.	3 "	good, h = 0.30.	h = 0.
P. ₄	few days.	died, 6 days.	no op.
A. B. ₅	5 weeks.	1 day.	1 day.	3 months.	good, h = 0.10.	h = 0.
F. A. ₆	1 day.	4 "	1 "	3 "	good, h = 0.50.	h = 0.01
G. B. ₇	1 week.*	4 weeks.	1 "	1 "	destr. by chronic otorrh., h = 0.30.	h = 0.02
F. ₈	18 years.	4 days.	4 "	2 "	destr. by chronic otorrh., h = 0.00.	h = 0.
N. S. ₉	3 weeks.	7 "	no com.	1½ "	good, h = ?	h = ?
J. L. ₁₀	2 days.	11 "	"	1½ "	good, h = 0.40.	h = 0.05
J. W. ₁₁	20 years.	still continues.	2 days.	4 "	destr. by chronic otorrh., h = 0.00.	h = 0.
A. H. ₁₂	6 weeks.	3 days.	no com.	1½ "	good, h = 0.05.	h = 0.
M. W. ₁₃	few days.*	2 "	"	1½ "	destr. by chronic otorrh., h = 0.01.	h = 0.
C. K. ₁₄	8 months.	3 months.	3 weeks.	1½ "	destr. by chronic otorrh., h = 0.10.	h = 0.
S. ₁₅	2 weeks.	1 day.	1 day.	still under treat	good, h = 0.10.	h = 0.
J. D. ₁₆	6 "	2 "	1 "	" " "	good, h = 0.20.	h = 0.

*Read before California State Medical Society.

†In these cases there was a relapse from a chronic otorrhoea.

munication closed in one to four days, in all but two cases (2 and 14). The external wound closed in from one to four months, except the first which remained open fifteen months, and the last two cases still under treatment. After recovery the memb. tymp. (except when destroyed by chronic otorrhoea) was always somewhat thickened, and the hearing from 0.10 to 0.50; very good considering the previous condition, which was in ten cases h. = 0.0.

In case 1, a second operation was necessary, to close the external wound. In case 2 the discharge from middle ear continued for four months, ceasing about the same time the external wound closed.

Affection of the bone resulted from chronic otorrhoea in two, from acute relapse of chronic otorrhoea in three, and from the acute form in the remaining eleven cases.

Case 14 a child of five years had scarlet fever, followed by bilateral otorrhoea; a swelling appeared on mastoid region of left side. This was opened by the attending physician, but the parents evidently neglected the child, for when brought to me, eight months later there was visible behind the left ear a large circular opening two ctm. in diameter, showing denuded bone, which proved to be a sequestrum of the entire mastoid process and adjacent osseous tissue. This after removal and thorough disinfecting resulted in a perfect cure in three months with hearing h. = 0.10 (bilateral) the memb. tymp. showing only a small perforation. In this case, both ears being affected, there was before the operation, almost total deafness, the child hearing only a loud voice; while at the close of treatment, she could hear on either side, ordinary conversation in six meters. Case 15 is interesting in that the patient, a physician, would take no anæsthetic, and the operation was made with no assistance except himself. There was no swelling of the mastoid region, nor the slightest pain on pressure, yet the necrosis was probably more extensive than in any of the other cases.

The method of operating followed by me is to use Schwartze's chisels until pus is reached (usually 1 to 10 m. m. in depth) then smooth out the cavity with scoops, syringe with solution of carbolic acid or sublimate, and iodoform dressing.

The treatment is to cleanse daily with disinfecting solutions and when the external wound is sufficiently closed to apply a conical lead nail, gradually reducing this in size until it is finally left out and in a few days the wound is closed and patient dismissed.

It may be stated here that in no instance has this operation resulted fatally, notwithstanding that two cases (2 and 8) were in a semi-delirious state when operated and could not possibly have survived a delay of twenty-four hours.

GUN-SHOT WOUND OF THE STOMACH—REPORT OF A CASE.*

By A. A. SMITH, M. D.,
HAWKINSVILLE, GA.

Through the courtesy of Dr. A. N. Peurifoy, who was the attending physician, I am permitted to make a report of this case.

On 28th day of February last Dr. Peurifoy was called to see a negro, who in a difficulty with another negro, had received a pistol shot said to be in the stomach.

On arriving and after making an examination, the doctor found that in the fight which had occurred two hours previous, his patient, a boy, eighteen years of age, had received a wound directly over the stomach. A casual examination with the eye alone was all that was necessary to show that the ball had penetrated the cavity of that organ. Not beingsatisfied, however, he made a careful and cautious examination with the probe and found that the ball had entered at a point about two inches below, and to the left of the tip of the ensiform cartilage of the sternum. The probe passed readily into the cavity of the stomach, and the doctor supposing that the ball had passed through and lodged in some other position of the body did not pursue the examination further. When first seen morphine was administered hypodermically to relieve pain which was severe at the time, also instructions were given to use cold applications to the wound together with such other general instructions as was thought best. On

*Read before the Georgia State Medical Association, April, 1892.

the following day the doctor returned expecting to find a well developed case of traumatic gastritis with peritonitis. In this however he was mistaken as the pulse was 80 and temperature normal and no indications of any inflammatory process, whatever. At this visit the cold applications to the wound with morphine to relieve pain should there be any was continued, also instructions were given that in the event the bowels should not act, that two cathartic pills be given. On the third visit, which was about 48 hours after the boy had received the shot, he ascertained that there had been two or more free evacuations from the bowels, and to his great surprise the ball had passed with one of these evacuations.

M. Anderson, on whose place the difficulty occurred and for whom the negroes were working at the time, was immediately called by the mother of the boy and shown the ball. The wound healed by first intention, and just one week from the date of the injury the boy returned to his work, which was that of laboring in a saw-mill.

This is an unusual case and can be accounted for only on the theory that the ball was spent when it entered the cavity of the stomach, and dropping became mixed with the food and passed out as as other foreign bodies, such as coppers, nickels, buttons, etc., which enter the stomach by the mouth. Another fact to be noted in connection with this case, is in reference to the particular point where the ball entered, which, as already stated, was below and to the left of the ensiform cartilage of the sternum. This would indicate that it penetrated at or near the cardiac orifice and there being none of the contents of the organ in contact with the walls at this particular point did not allow any escape of food, which, had there been any, would have been attended with fatal results.

There were no special features in the management of this case, in fact there could be nothing done except to relieve pain and await developments. I omitted to state in the beginning of this report that the pistol used was what is known as the old style Smith & Wesson revolver 32 calibre, and the distance the parties occupied was about ten spaces apart, also that I have the bullet with me which I will take pleasure in showing should any gentleman desire to see it.

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting, April 13, 1892.

DR. HIRAM CORSON read a paper on
PNEUMONIA AND ITS TREATMENT. (SEE
P. 765.)

DISCUSSION.

DR. WILLIAM PEPPER: I think great praise is due to Dr. Corson for the faithful and able manner in which he has kept before the profession the importance of blood-letting in certain conditions of disease, and especially in pneumonia. While not prepared to admit its necessity as a remedy in all cases, I must state that I find myself confronted—not rarely—with a group of symptoms indicating oppression of the heart, and approaching cyanosis, which yield to prompt and moderate venesection as to no other remedy. So that with continued caution, but, on the whole, with increasing frequency and confidence, I find myself resorting to it.

DR. JAMES C. WILSON: We must all regret the absence of Dr. Corson to-night; we shall certainly in the discussion miss his firm convictions, his ready retort, his wit, and the results of his ripe experience in this matter, which for so long a time has been so near his heart. It is certainly most interesting to hear this paper, a continuance of a series of papers in which this determined, clear-headed man at the age of ninety years continues to uphold his position in regard to the treatment of pneumonia. In listening to the paper it has been impressed upon me that I am in neither of the camps referred to by Dr. Corson. I must indorse what has been said by Dr. Pepper in regard to venesection. We all recognize the occasional necessity for venesection in the early stages of croupous pneumonia. It often gives relief from urgent dyspnea and pain, and sometimes even appears to save life. It cannot, however, be regarded as a specific treatment. It must be considered as symptomatic. I do not find myself in the camp of those who are prepared to adopt venesection as a routine treatment in pneumonia. On the contrary, I feel that my experience is opposed to this or any routine treatment.

I find myself equally out of place among those who rely upon the group of remedies known as arterial sedatives. I read from a paper* which embodies some views that I have expressed in regard to the treatment of pneumonia.

The paper speaks of various methods that have from time to time been largely employed and have gradually fallen out of use.

"In the same manner we condemn the treatment by tartar emetic in large doses, and with it is to be relegated to the limbo of discarded medicaments in pneumonia Trousseau's lauded *kermès*. The treatment by large doses of *veratrum viride* in the early stages, which still survives and finds in many quarters earnest advocates, is based upon the same antiphlogistic idea and has little to commend it. To add the depressing effect of a powerful drug to the pathological influences already depressing the heart is now recognized as increasing the danger of cardiac failure. In fact, if as our knowledge of croupous pneumonia indicates, many of the symptoms are due to a toxæmia, it were better to bleed the patient, if he is to be bled at all, into a basin than into his own vessels. To depress the heart by *veratrum viride* or *aconite* in the first stage, and to harass it by *digitalis* at a late period are among the vagaries of a therapeutics which takes pleasure in vaunting itself as rational. To give cardiac depressants in croupous pneumonia is always of doubtful expediency, and *digitalis* as a cardiac stimulant should be administered only in response to special indications. Of the latter drug Brunton says, 'It is of little use in pneumonia.'"

The difficulty of determining the value of treatment in pneumonia, it appears to me, lies in our inability to estimate the part played by treatment in the ultimate results in a large collection of cases.

"Croupous pneumonia occurs with great frequency in connection with other diseases. It is not uncommon during convalescence from acute infectious processes. Those who suffer from Bright's disease and from valvular and degenerative diseases of the heart and from organic diseases of the nervous system are especially prone to it. It not unfrequently occurs as the terminal condition in these affections and in other

constitutional diseases, such as diabetes mellitus and pulmonary phthisis. Under these circumstances, it preserves, however, its own clinical and anatomical characters, and must be regarded, not as a mere complication of preëxisting pathological processes, to which it has no essential causal relation, but as an entirely independent intercurrent disease.

"When we consider the modification of pneumonia under the existing circumstances and in the different periods of life from childhood to old age, and in alcoholic subjects, we are impressed with the uselessness of attempts to show by statistics the value of different plans of treating the disease. No general percentage of mortality can be relied upon as indicating the efficacy of a treatment, unless they are on a large scale and in connection with a critical analysis of the condition of the patients. It is a question of the seed, which is probably always the same, and the soil, which is definitely modified. The only reliable test of the value of treatment is its effect upon the general course of the disease, a test which is much influenced by the personal equation of the observer. For this reason plans of treatment once in vogue, credited with surprising results in reducing the mortality of the disease, have failed to stand the test of time and have passed into disuse. And while the profession unites in striving after some specific treatment for other infectious diseases, the present drift of opinion in regard to croupous pneumonia seems by common consent to be in the direction of a vigilant expectancy with active treatment of symptoms as they arise.

"Whether we regard acute lobar pneumonia as a specific inflammation, or, in the language of the day, as an acute infectious febrile disease, of which the pulmonary lesions are merely a localization, we recognize in its causation three factors—a pathogenic bacterium, a predisposition, and an exciting cause—in other words, the seed, the soil, and the implantation. Nothing in the process is more obvious than its specific nature.

"Pneumonia cannot be regarded as a simple inflammation. This being the case, the antiphlogistic treatment of former times scarcely deserves discussion. Indiscriminate blood-letting as a routine treatment for a specific pathological process, the natural history of which shows it to

*The Medical News, December 20, 1890.

be self-limited and of comparatively short duration, is not in accordance with modern therapeutic principles. Still less are repeated venesections and bleeding *ad deliquium*."

It seems to me that we are fighting over the old battles that were fought almost a century ago in regard to the antiphlogistic treatment of fevers. No one now regards typhus or enteric fevers as inflammatory diseases. No one regards scarlet fever as an inflammatory disease, yet we know that toward the close of the last century and in the early part of the present century, when fevers were considered to be varieties of the fever, fever was considered to be a manifestation of inflammation, and not only was its treatment by venesection discussed, but it was pretty generally practiced. Almost all physicians of a generation later than that of our distinguished friend have come to regard pneumonia as a specific infectious process. Nobody now holds that a specific disease shall be treated by venesection. We have here to deal with a self-limited disease, a disease of short duration, and a disease which, in the majority of cases, tends toward recovery. To bleed as a routine measure is to add in a large number of the cases that come under our care the ill-borne effects of depletion to the debilitating influence of a specific inflammation attended with a depressing toxæmia. Therefore, it seems to me that it is scarcely worth while to oppose a plan of treatment based upon a conception of the pathology of the progress which is no longer tenable.

To bleed, however, for the relief of the dyspnoea, to bleed for the over-distended right heart, is not only clearly a duty in certain cases, but I believe that it is a duty which is often omitted to the disaster of the patient. I myself have had unfortunate results in the cases of pneumonia that I have bled. I have bled but few cases—they probably do not number more than four—and every case that I have bled I have lost. I have bled freely and without hesitation.

In the treatment of pneumonia we must pursue a plan of vigilant expectancy. I am opposed to the use of large doses of digitalis in the latter stages, during the period spoken of as that of red hepatization, after the exudate has undergone coagulation and has established in one lobe or in the whole lung a marked obsta-

cle to the circulation. It seems to me that the use of digitalis under these circumstances throws work upon the heart which is unnecessary, and tends further to harass it. In regard to the expectant treatment, the whole history of the disease, viewed from a standpoint of its specific nature, seems fully to justify in the present state of our knowledge an armed expectancy; a method of treatment in which, on the one hand, stimulation is not practised, and on the other hand, depletion is avoided, in which there is relief of the symptoms with a use of proper hygienic measures, and the disease is allowed to run its course just as we feel obliged to allow the other self-limited infectious diseases to run their course.

Dr. J. M. Anders: In the first place I think that Dr Hiram Corson is to be congratulated heartily upon the uniformly good results obtained from free bleedings, and, in the second place, he is especially to be admired for his courage in bleeding during these long years, indiscriminately, and without hesitation. Now there are a great many men, it is true, who are not in the same camp with Dr. Hiram Corson. The speaker who preceded me stated that he was not in favor of indiscriminate bleeding, and that he bled simply for subsidiary reasons and purposes. In that opinion I heartily concur. But, gentlemen, the results of bleeding, as practised by Dr. Hiram Corson, are certainly unparalleled for excellence; and, hence, it will not do to say that his cases got well in spite of treatment, on the one hand, nor to say that these cases would have gotten well without treatment, on the other hand. It, therefore, seems to me that we are put to the task of finding an explanation for the good results of repeated large bleedings in the hands of Dr. Hiram Corson.

I have myself bled but very few patients with pneumonia. About ten years ago I promised Dr. Hiram Corson that I would bleed my pneumonia patients, which promise I have kept only in part. Soon after that I met with a case of æthenic type in a male about forty years of age, with full, bounding pulse, flushed face, high arterial tension, and marked nervous excitement. I withdrew about twenty ounces of blood. This seemed to quiet the heart, diminish arterial tension, and

allay the nervous excitement, and the patient made a rapid and good convalescence. Sometime afterward I met with another case in which I tried bleeding, but with a fatal termination. This case was not of purely sthenic type, nor was it one, strictly speaking, of asthenic type. It seemed to occupy a middle place. I withdrew about twenty ounces of blood and did not repeat the bleeding. Now, according to the remarks of Dr. Corson, I probably bled timidly. I saw a third case in which blood-letting was performed, in the wards of the Episcopal Hospital. This case in the hands of a colleague, and I agreed with him that bleeding might be of some service, although the patient was practically moribund when the procedure was resorted to, and it reached a fatal termination in a short time. The cause was one of sthenic type, with more or less congestion around the seat of consolidation, which evidently had been followed by œdema.

The chief reason—at least so it seems to me—why Dr. Hiram Corson's results have been so regularly favorable is the fact that patients living in the country and suffering with pneumonia, generally present the sthenic type of the disease, while, on the other hand, cases occurring in large cities like Philadelphia, very generally do not present the sthenic type, but rather the asthenic adynamic type. When a patient of the sthenic type presents himself, it seems to be far better to bleed than to give arterial sedatives—better than to give veratrum viride or tincture of aconite. The bleeding will most certainly quiet the heart's action, lower arterial tension, and allay more or less the nervous excitement, and will remove a portion of the burden from the heart without robbing it of much, if any, of its power. It is true that veratrum viride or tincture of aconite will also relax the bloodvessel walls, will also quiet the heart, but all of the indications fulfilled by these drugs, and I say it without hesitation, do so at the expense of heart power. The same is not true of blood-letting—at least, not to the same degree. Veratrum viride and tincture of aconite, while relaxing the vessel walls, also act as cardiac depressants.

I gather in the next place, that Dr. Hiram Corson has had good results from blood-letting in the second stage of the disease. It is hard to understand how

bleeding at this stage can be of benefit, unless, as Dr. Wilson has explained, under certain circumstances, we thereby relieve an over-distended and dilated right heart. On the other hand, it is to be remembered that in the second stage of pneumonia, as in the first, the fibrin factors of the blood are three-or-four-fold what they are normally. Hence, under these circumstances, large bleedings, by diminishing this tendency, will lessen the liability to the formation of cardiac thrombi, and, to my mind, cardiac thrombi are frequently the chief cause of a fatal termination. At all events, thrombi are followed by dilated right heart, venous stasis, and death.

I do not believe that blood-letting exerts any good local effect in the second stage. The only way in which bleeding can affect favorably the lung is when we have such complications as congestion around the seat of consolidation, followed by œdema. Bleeding then acts according to ordinary hydraulic principles, and only in this way.

The method pursued by myself in the treatment of pneumonia is very briefly as follows, and in stating the method which I have pursued for a number of years, I shall perhaps bring out a few points bearing upon the paper of the evening. During the first stage of pneumonia, as I have already said I have bled a couple of times. My usual method, however, is to give morphine hypodermatically as recommended by Dr. Alfred Loomis, of New York. Perhaps the chief reason that I have not bled is because I have not met with a purely sthenic type of the disease. During the past winter I, however, saw two cases that apparently belonged to this type, but as they both followed la grippe, I was timid and did not bleed. Since they have died, I have regretted that I did not bleed them. I give morphine in doses of one-sixth to one-quarter of a grain repeated every eight or twelve hours. Morphine fulfills several indications fulfilled by blood-letting: it quiets the heart's action, it relieves pain, it guards the heart, and at the same time gives rest and comfort to the patient. In addition to morphine, or if it does not suffice to allay arterial tension, I use local blood-letting, applying several leeches and withdrawing six to eight ounces of blood, and repeating this if necessary. If leeches be not convenient, I sometimes resort to wet cups, withdrawing about the same amount of blood. It is hard to explain

the effect of local blood-letting on physiological grounds, yet of the efficacy of this method I am thoroughly convinced. It does diminish arterial tension and nervous excitement and gives relief from pain.

In the second stage of pneumonia the indications, so far as the local trouble is concerned, are, it seems to me, the reverse of what they are in the first stage. In the first stage, the bloodvessels are dilated, but in the second stage the bloodvessels are, as a rule, compressed. Their lumen is diminished. The obstruction to the pulmonary circulation is greater than in the first stage. In the second stage the indications are for the use of stimulants, but alcoholic stimulants should be supplemented by the administration of strychnine. Strychnine certainly fulfills certain indications not met by alcohol. Especially should we note its effect on the vasomotor and respiratory centers. If strychnine and alcohol fail to relieve the heart, then I resort to digitalis. I do believe that digitalis increases the capacity of the heart for work. Since it slows the heart's beat, it also allows time for the heart to carry on its nutritive functions. When the digitalis fails to whip up sufficiently the flagging heart, and venous stasis goes on increasing, then I administer oxygen by inhalation. During the last stage I use the stimulating expectorants, and where resolution is delayed nothing is better than turpentine.

I shall not take up the time any longer; but I wish to say, in conclusion, that the Society is indebted to Dr. Hiram Corson for having produced this paper, and for calling renewed attention to a measure which has been too much neglected in recent years.

DR. H. C. WOOD: I should not speak to-night did I not think that there was great danger that, in the lack of clear thinking, we were perhaps losing lives. I do not propose to do more than to make a few comments upon what has been said by my friends Dr. Wilson and Dr. Anders. I am always afraid of rhetoric in a scientific discussion. When I hear of such things as a heart being "harassed" by digitalis and similar expressions, I always begin to fear that the science is in inverse proportion to the rhetoric. Now, how can digitalis harass the heart? Much more, how can it exhaust the heart? You might as well talk of exhausting a starv-

ing man by a dish of broth, as to talk of exhausting a heart by giving digitalis. Digitalis adds power to the heart. That is an absolutely proven physiological fact. It lessens the nervous irritation of the heart, and at the same time increases the length of the diastole and the force of the systole; far from harassing the heart with digitalis, you quiet the heart that is already harassed by disease.

Then, again, we have heard that the heart is laboring with an obstruction, and therefore we must not give digitalis. That is the very reason why we must give digitalis. You have one-fourth of a pair of lungs obliterated—that means that one-fourth of the lumen of the vessels is shut off, so that the heart must force the normal amount of blood through three-fourths of the normal space. Of course, under such circumstances, the vessels and the right side of the heart must be oppressed. The heart is weakened by starvation and disease, and it finds itself in the presence of narrowed channels. Digitalis aids us in advanced pneumonia, because there is obstruction, and because the right side of the heart feels the power of the drug. We know by clinical experience the value of digitalis. Statistics are fallacious; but there is a kind of test that is not fallacious. If you take a man dying with a feeble, thready pulse, scarcely alive, and raise him up with digitalis and get the long, strong pulse, and then take away the digitalis and see him drop; give the digitalis again and lift him up again; then let him drop again and lift him up again, you have proof that the digitalis does control the circulation. You know that it does do good. Moreover, in advanced pneumonia, when properly used, digitalis has no power for evil. The real difficulty in its use in pneumonia is that, somehow, high temperature interferes with its action. When there is high temperature in pneumonia, the heart muscle often will not respond to digitalis.

Now a word to my friend Dr. Anders. He spoke in regard to blood-letting and arterial sedatives, and said that you take power out of the heart by arterial sedatives, but that you did not take power out of the heart by blood-letting. Let us make an experiment: give a man daily doses of veratrum viride and keep the pulse down for twenty days, and then take a man and remove twenty ounces of blood

each day for twenty days. Which heart would come up the strongest at the end of this time? It is essential, in the practice of medicine, to distinguish between depression and exhaustion. Blood-letting exhausts a man—it takes power out of a man. It leaves the man something less than before. Does *veratrum viride* take any power out of a man? It lays its hand upon the heart and vasomotor centers, and binds them down with strong thongs. The man is there, and when the thongs are cut—i. e., the depression removed—he rises up as strong as ever.

DR. C. McCLELLAND: I should like to say one word from my personal experience. Something over two years ago I had an attack of pneumonia; both lungs were involved; the heart was depressed, dropping every third beat, and valvular murmurs were present. The mind was clear. I said to the physician in attendance: "This kind of thing cannot last more than twelve hours. Can nothing be done? How about digitalis?" He agreed to try digitalis. It was used vigorously and in such large doses that one of my attendants remained all night to watch the effect. Inside of eight hours the beat of the pulse was strong, the intermissions had practically ceased, and the valvular murmurs had disappeared. I believe that had it not been for digitalis I should not be here to tell the story.

DR. JUDSON DALAND: I have been quite interested in the treatment referred to, but I think that the ordinary cases of pneumonia—as we all see them in the majority of uncomplicated cases—may go on to a satisfactory result. I have been much impressed with the fact during the last two years. In the first place, as has been said by Dr. Anders, when death occurs it is usually directly through the right heart. We have an increase in the amount of blood in the venous system and over-distention of all the veins and dilatation of the right heart, with death following from failure of the right heart. Four autopsies made during the past year showed this condition very conclusively. It seems to me very certain that if we abstract blood directly from the median basilic vein we directly drain the blood from the right heart and lessen venous stasis and take off the labor from the right heart and prevent death from heart failure. This, I take it, is an important indication for blood-letting.

Furthermore, as has already been said, heart-clot is unquestionably accountable for many deaths. It has often been said that in pneumonia the blood has an increased tendency to coagulate. This fact has not been appreciated with sufficient clearness. About eight months ago I had occasion to examine the blood of several cases of pneumonia, and at the same time was examining blood from other diseases, chiefly diseases without fever, and I was strongly impressed by the fact that in every case of pneumonia, when I attempted to examine the blood it would coagulate in the capillary pipette with great rapidity, and it required special manipulation in order to make the examination. It seems to me that if the right heart and venous system is over-filled, a condition favoring the condition for this coagulation, I think that physical signs of dilatation of the right heart should be searched for, and that we should not wait until cyanosis develops. In two cases of pneumonia where the right side of the heart was dilated and the veins overfull, the physician insisted upon waiting for cyanosis. Cyanosis did develop, and at the same moment death occurred. I think that if the physical signs can be made out, and with it are associated symptoms, venesection should be promptly performed.

DR. S. SOLIS-COHEN: I arise to call attention of the Society to the usefulness of the nitrites in the treatment of pneumonia. Some of the remarks in discussion, especially those of Dr. Wood, might at once have suggested to those familiar with the physiological properties of the nitrites the great power that this class of drugs can and does have in the treatment of diseases like pneumonia. I am not speaking of the management of conditions directly dependent upon the specific poison of the disease, if there be such a specific poison, but of what may be done to relieve the embarrassment of the circulation from mechanical stasis due to obstruction in the lungs. Dr. Wood laid stress upon the fact that a large portion of the arterial conduit was wiped out, or better, blocked out. It seems to me an obvious inference that it would be highly desirable to increase the capacity of the remaining portion. Looking on the arterial and venous channels, pulmonic and systemic, as one continuous canal, it is theoretically clear that we must especially dilate the arterial

portion in order that the whole volume of the blood may not accumulate on the venous side; and in order likewise to facilitate the passage of the blood through branches of the main canal collateral to those obstructed. The nitrites—nitro-glycerin, amyl nitrite, sodium nitrite—will dilate the peripheral arterioles, and will dilate the capillaries, increasing the capacity for blood of the arterial side of the circulation, and thus partially compensate for that portion of the arterial channel dammed out by the blocking of the vessels in the lungs. Pulmonic vessels are dilated as well as systemic, and thus the right heart is directly relieved of labor, and the danger of over-distention in large degree diminished. Respiration is likewise relieved, especially if oxygen be given by inhalation coincidentally. I have seen this remarkably illustrated, not once or twice, but more than a dozen times within the last two or three years since my attention has been more particularly directed to the subject. This measure alone will not, of course, succeed in bringing about recovery in every case of pneumonia. There are other additional ends to be aimed at by the physician, and I had been hoping to hear attention called to one of them. The increased tendency of the blood to coagulation in cases of pneumonia was dwelt upon, but the value of ammonium salts in maintaining the fluidity of the blood was not spoken of. This subject is not at all new. It was long ago brought to the attention of the profession by the same great man that introduced nitrites, Dr. Benjamin Ward Richardson, of London. Others had, perhaps, used ammonium carbonate and ammonium chloride before him, but he it was who laid especial stress upon the danger threatening pneumonitic patients, of death from heart-clot, and for that reason urged the early and free use of preparations of ammonia to prevent heart-clot by maintaining the fluidity of the blood. He has also called attention to a useful method of administering ammonia in septic conditions associated with fibrinous exudations, namely, by giving the vapor of ammoniated chloroform.

I should like to add one word in regard to the rationale of blood-letting in selected cases of pneumonia. I have seen blood-letting do good by relieving the right heart of distention, and by dimin-

ishing the quantity of blood which the enfeebled heart has to push through the much-diminished caliber of the vascular channel. There are two ways of taking a portion of its labor from the heart: one is to dilate the arterioles, thus increasing the vascular capacity and diminishing the vascular resistance—the agent used for this purpose being a nitrite—and the second is to diminish the quantity of blood which the heart is called upon to propel and the vessels to conduct. It has been said that the loss of twenty ounces of blood is a serious matter to the enfeebled patient. That depends on where the blood is, what its condition is, what it is doing. A portion of the patient is thrown out of functional relation, and a normal quantity of blood becomes relative plethora. It is of no good to the patient while it stagnates in his viens. It does not nourish him, and it does interfere with the passage of the nutrient fluid into the tissues. He is a great deal better off without these twenty ounces if he is unable to make use of them, if they contain toxic products, if they are simply blocking the lungs and veins, and finally blocking the arteries. They antagonize the heart—first the right heart, then both sides; they do no good; they are not, to use Dr. Wood's comparison, liquid food to nourish; they are liquid poison to kill, and the sooner the patient gets rid of them the better his chances for recovery.

DR. A. E. ROUSSEL: In connection with the use of digitalis, it may be interesting to note the results obtained by Professor Pétresco, reported in a recent number of the *Bulletin de Thérapeutique*. [See editorial in the REPORTER of Dec. 12, 1891.] He gives an analysis of over seven hundred and fifty cases in which he used large doses of digitalis—as high as two drachms of the leaves in twenty-four hours—irrespective of the stage of the malady. The mortality was a trifle over one per cent. He claims that the pulse-beats are reduced from 120 or 130 to 28 or 30 per minute, and the temperature also seems to be favorably affected, falling four or five degrees; besides which, it is said that the entire course of the disease is jugulated in so short a time as three or four days. The publication of such a large series of cases seems to require a careful study of the matter. We have all been in the habit of giving digitalis in the second and third

stages of pneumonia, and this report would bear out the statement that digitalis and carbonate of ammonia are eminently satisfactory modes of treatment.

DR. ERNEST LAPLACE: I have been very much interested in the discussion, and was hoping that a few more words would be said on the etiology of the disease, so as to give some explanation as to the reason why there are sometimes sthenic cases and at other times asthenic cases, and therefore why bloodletting would be indicated in certain cases and not in others. We know, as was said by the first speaker, that pneumonia is a specific disease; that it needs a special soil and a special seed developing in it. We know that the same seed, developing in a different soil, will produce a disease, but that disease is not necessarily the same in every respect. In the same way we plant a seed in different countries, and it will not produce exactly the same tree in each case. There are as many different soils as there are patients suffering from the disease. As a result of the growth of the peculiar organism we have produced a toxalbumin, or, if you will, ptomaine, which in the patient acts as a heart stimulant, and we have a sthenic case. In such a case gentle bloodletting will relieve the heart of the extra amount of work. It will not cure the disease, and has no tendency to alter it, but makes it less grave than when the blood has not been removed. Where the toxalbumin is not so violent, or is not so abundant, or is of a different physiological action, the heart not being over-stimulated, the disease weakens the patient, and blood-letting is not indicated. In such a case calm expectancy, with readiness to meet the symptoms as they present themselves, is the proper plan of treatment.

DR. FRANK WOODBURY: I have been much interested in the discussion, but of course, was particularly attracted, as doubtless many others were, by the paper of Dr. Hiram Corson. The experience of a physician extending over a period of sixty-five years is certainly one that we should receive with great respect, and especially when he possesses the recognized ability as a practitioner such as that possessed by the author of the paper under discussion. While listening to the paper and the discussion, the celebrated advice of Chomel came into my mind, "to treat

the patient and not the disease." We have been considering some of the dangers attending a case of pneumonia. The greatest danger to which the pneumonia patient is exposed, in my judgment is to have a man for his physician who is so engrossed with treating the mental abstraction which he calls pneumonia that he cannot see the concrete needs of the actual individual patient who claims his care. I entirely agree with the last speaker with regard to the desirability of confining ourselves to the scientific language in a discussion of scientific questions, and the dangers to which we are liable from the abuse of rhetoric when referring to medical subjects. I wish to use only words of truth and soberness, and therefore, will not speak of the heart "putting its shoulder to the wheel" under the influence of a remedy, nor as "harassed" either by a drug or a disease. Being rather deficient in poetic insight or the imaginative faculty, I will even confess that I could never see any "indication" for remedies. The word "indication" is not in my therapeutic vocabulary. Nature never "indicates" to me a drug or a combination of drugs in any morbid state. Experience has shown that patients may be benefited by certain remedies when judiciously administered, but we are not restricted to such drugs, and we are willing to abandon them as soon as others shall be discovered which will cure more "safely, quickly, and agreeably." This we could not do if Nature infallibly indicated remedies. The late Dr. J. Milner Fothergill called attention to the robust countryman at Smithfield and compared him with the pallid clerks and artisans thronging the London streets, and very justly pointed the moral that the line of treatment in these two classes in case of disease must be entirely different. Perhaps this will explain the success of Dr. Corson in a rural community, with his practice of depletion in pneumonia, a practice which our city physicians have been obliged universally to abandon. In spite of the advocacy of the great Dr. Rush and his successors, it has almost become obsolete with us. I think that perhaps we have done as much as we should do for the present, in regard to the classification of diseases, and that we should now begin to classify our patients as the foundation of success in therapeutics. For instance, instead of dividing pneumonia into

sthenic and asthenic cases, I think that it would greatly simplify the problem of treatment if we were to substitute the words plethoric and anæmic. It is easy to make a distinction between plethoric and anæmic patients. Sthenic cases are more likely to occur among the plethoric; asthenic cases among the anæmic. In plethoric cases, or even where the hyperæmia is local, blood-letting is a rational procedure, and when the symptoms are urgent and do not admit of delay, it is practised with advantage, as Dr. Corson has shown. We should not, however, bleed for the pneumonia; as has been already said, we should bleed for mechanical reasons. Where the symptoms are less urgent we may decide to depend upon arterial sedatives and dieting to accomplish the same purpose. In regard to a typical case of pneumonia, by which I mean an ordinary acute lobar or croupous pneumonia, I might say that I do not recognize congestion as the first stage in the morbid process. Even the premonitory hyperæmia of Stokes must have something to precede it. It is certainly permissible to assume a nervous disturbance, which causes the local hyperæmia; in other words, since efficient morbid influence acting through the vasomotor nerves of the affected lung and the cardiac ganglia, and causing topical disturbances. The view is now generally held that pneumonia is not an inflammation, but a general disease, if not a "specific fever."

In a plethoric case, or robust patient, I should commence the treatment by that old-fashioned remedy, an emetic, and preferably ipecacuanha, because it is a fact that this emetic tends to produce anæmia of the lung. There is no better arterial sedative than an emetic, and this also quickens the functions of the skin and favors diaphoresis. This I would follow by magnesia sulphate in sufficient doses to produce several watery evacuations of the bowels. In this way, we relieve the over-distension of the blood-vessels. We do not bleed the patient into his own tissues, but into his own bowels. Then I should simply give remedies to make the patient comfortable, and keep him upon a very restricted diet. If there is great restlessness or too much cough I would give small doses of chloral or bromide in preference to morphine. I remember a case where a patient was doing well under

small doses of chloral and bromide, I was attending him during the absence from the city of another practitioner who, on returning, took charge of the case and changed the treatment to Dover's powder, with the result that in the course of a couple of days, the patient died. I think that many deaths in pneumonia are really due to opiates, and, in the beginning, they are inadmissible, just as in the early stages of bronchitis.

An anæmic case of pneumonia I should treat entirely differently. Here I should give restoratives and broths, and depend upon nursing more than upon medicines. I would give digitalis and quinine, and perhaps iron, but in such cases supporting the strength of the patient is far more important than any special drug, and bleeding is not to be considered.

As we know that a large majority of the cases of pneumonia get well under any and every form of treatment, we are tempted to echo the advice of Chambers with regard to rheumatism, "to cover up the patient with blankets and leave him alone," which, in fact, is about what Jürgensen advises in pneumonia. Unless we have certain symptoms that give annoyance, pain, or suffering, I think that the vigilant expectant treatment advocated by Dr. J. C. Wilson in opening this discussion, not too actively interfering with the course of the disease, will give the best results in the greatest number of cases. Where the emergency arises and the patient is suffering from acute plethora, or distension of the right heart, or overwhelming congestion of the lung, I should bleed just as if the patient did not have the pneumonia, but I would never bleed for pneumonia. The routine practise of venesection in this disease has never recovered from the death-blow it received at the hands of J. Hughes Bennett. At the same time, I can understand that the emergency may sometimes arise when the abstraction of a certain amount of blood will afford great immediate relief to the patient, without being followed by any serious consequences as regards the subsequent course of the disease.

DR. JOHN B. ROBERTS: It may seem presumptuous for me, who see comparatively few medical cases, to speak on this subject. I have, however, bled in a few cases of pneumonia. I now recall four cases, of which three recovered and one

died. It is, however, not fair to the Society nor to statistics to quote these cases together. They are divided into two distinct classes. The first class contains cases of traumatic pneumonia, which I see in surgical practice. They are usually of the sthenic character, and in them at times the engorgement of the lungs, from acute traumatic pneumonia, demands depletion. The second class of cases in which I am inclined to bleed are cases similar to those spoken of by Dr. Anders, in which, in addition to a pneumonia, there is overwhelming of both lungs with what might be called œdema of the lungs. These are cases in which the presence of moist râles indicate that the smaller bronchial tubes, and possibly the vesicles where they are not filled with the croupous deposit, are filled with mucous or serous fluid, thus preventing respiration. The patient is cyanosed, gasping for breath, and *in articulo mortis*. These cases should be bled. I have bled two of them and one has recovered. The other two cases of my four already mentioned, were instances of traumatic pneumonia in which I think that there is no question that a moderate bleeding of from eight to ten ounces or less (I have never removed many ounces) was of service. One was a case of gunshot wound of the lung followed in about twenty-four hours with violent dyspnoea, orthopnoea, and all the symptoms of acute pneumonia. I at once bled and he was relieved; the symptoms disappeared and he rapidly recovered, notwithstanding the fact that he had a bullet in the chest. The second case was that of a man who had been run over by a wagon, had several ribs broken, a pneumonia following from punctured wound of the lungs by the ribs. He was bled, with a satisfactory result. Of course, we must separate these cases into two groups—those of traumatic sthenic pneumonia, and those in which there is overwhelming of the lungs and the patient threatened with drowning in his own secretions. In the latter case the abstraction of blood gives the lungs an opportunity to be relieved, lessens the engorgement of the right heart, and permits respiration to be properly carried on.

DR. GEORGE N. HIGHLY: I have listened with a great deal of pleasure to the remarks that have been made, and I feel very thankful for the favorable comments which this paper has elicited. With re-

gard to pneumonia being a general disease, we differ from the many eminent men who hold that view. We do not think that this has been proven. Because it is accompanied by certain constitutional disturbances, is no reason for regarding it as a specific disease. We know that local troubles when similarly situated pursue like courses, and when extensive are accompanied by constitutional symptoms in proportion to their extent and gravity. But whether we regard pneumonia as a local disease or as a local manifestation of a general disease, we must agree that the condition present demands relief by measures which will unload the lung and the right side of the heart, and we think that venesection does this with the greatest amount of relief and the least amount of depression. A word in regard to bleeding in the so-called asthenic cases. Out in Conshohocken we do not see such cases. We regard the condition as precisely the same in all our patients, whether robust or weak, or run down by disease. I know of one case, a woman with an ovarian tumor weighing sixty pounds, for which she had been refused operation. She was taken with pneumonia and her physician attended her for a few days; the disease had progressed to the second, and perhaps to the beginning of the third stage. Dr. Corson was called in consultation and advised venesection, which her attending physician had hesitated to perform on account of her great weakness. Twelve ounces of blood were removed with relief of the symptoms, and from that time she did not expectorate any more of the rusty colored sputa. That was a remarkable case and I could give the full notes if there were time. I refer you also to the case of Dr. Michener (*Med. and Surg. Rep.*, July, 1882), who, at the advanced age of eighty-seven years, and while suffering from a fracture of the arm, was attacked with pneumonia. He directed the attending doctor to "bleed until the pulse gives way and the respirations become easy without regard to what may be in the basin." This was done and relief soon followed. The amount taken was 3xv.

About bleeding in the third stage. Dr. Corson's idea is that there is always some stage of congestion in part of the lung. If you could conclusively show that the area first affected did not extend with each succeeding day, and that the parts in-

volved simply went through the several stages without further extension, then it would be true that venesection would be harmful after the first or second stage. We think, however, that in every case and in every stage of the disease, until the crisis has been passed, new portions of the lungs are continually being involved, and for these new areas of congestion and inflammation blood-letting is of value.

SELECTED FORMULÆ.

PROPHYLAXIS AND TREATMENT OF SORE THROAT.

The following is recommended by Capart (*Nouveaux Remèdes*):

(a). Prophylaxis.

R Crystallised phenic acid.....5 grammes.
Absolute alcohol.....10 "
Essence of peppermint.....10 drops.
M. Sig. Place 10 drops in a cup of hot water and employ it as a gargle night and morning.

(b). Treatment.

R 1. Decoction of willow...15 to 300 grammes.
Salicylate of sodium...5 to 5 "
Biborate of sodium...5 grammes.

M. Sig.—For internal use.

R 2. Calcined silica.....1 gramme.
Alcohol.....
Glycerine.....55 10 grammes.
Water.....300 "

M. Sig.—For gargles.

—*Journal de Medecine de Paris*, March 27, 1892.

FOR STRIDULOUS LARYNGITIS.

In the treatment of this affection, the following is highly recommended:

R Chloroform.....5 to 10 drops.
Water.....35 grammes.
Glycerine.....5 "

M. Sig.—A dessertspoonful every half-hour.

—*Journal de Medecine de Paris*, March 27, 1892.

FOR MARGINAL EXFOLIATIVE GLOS-SITIS.

Besnier recommends the following combination:

R Cocaine.....0.05 gramme.
Balsam of Peru,
Boric acid.....55 1.00 "
Vaseline.....40 grammes.

M. Sig.—Apply externally.

—*Revue de Laryngologie, d'Otologie et de Rhin.*, April 1, 1892.

HYPERIDROSIS.

R Sodii borat.....
Acid. salicyl.....55 grams 7.5
Acid. borici.....2 "
Glycerin.....
Alcohol.....55 " 30.

M. ft. Unim. Apply to hands thrice daily.

SYRUP FOR CHILDREN.

In the treatment of diseases of children the following is recommended:

R Creasote.....5 grammes.
Alcohol, 90 per cent.....125 "
Glycerine.....50 "
Syrup of tolu.....250 "
Laurel water,
Distilled water.....55 40 "

M. Each dessertspoonful contains five centigrammes of creasote.

—*Journal de Chirurg. et Therap.*, No. 11, 1891.

A NEW DIURETIC REMEDY.

Pichi] (*Fabiana imbricata*) a new diuretic, and which also has a sedative action upon the vesical and urethral mucous membrane, is recommended in the following formula:

R Fluid extract of pichi...32 grammes.
Nitrate of potassium...4 "
Distilled water.....90 "

M. Sig.—A dessertspoonful every three hours.

—*La Medecine Moderne*, April 7, 1892.

INFANTILE DIARRHŒA.

For thin, greenish, slimy stools, Dr. Meigs orders:

R Acid sulphurici dil.....gtt. xij.
Morphine sulph.....gr. ¼.
Spir. vini gallici.....3 ss.
Syr. zingib.....3 ss.
Aque.....q. s. ad 3 ij.

M. Sig.—One drachm every three hours.

EXPECTORANT.

R Ammonii et potass. tart.....gr. i.
Ammonii muriat.....3 iv.
Ext. glycyrrhizæ.....gr. ¼.
Morphine muriat.....gr. i.
Syr. toluatan.....3 i.
Ag. laur. cerasi.....3 i.

M. Sig.—Teaspoonful every two or three hours.

—*Bartholow*.

SORE THROAT.

A gargle of hot claret often affords much relief in cases of acute catarrhal pharyngitis. Where the inflammation is rheumatic in character, a spray of the following is useful:

R Morphine.....gr. iv.
Ac. carbolic,
Ac. tannic.....55 3 ss.
Glycerin,
Aque dest.....55 3 iv.

M. Sig.—Use as a spray in the throat, about a teaspoonful at a time.

—*Med. Record*.

HERPES PRÆPUTIALIS.

A dusting powder employed by Besnier is:

R Acid. tannic. pulv.....gramm 5.
Bismuth. subnit.....gram 1.
Amyl.....gramm 300.

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LEADING ARTICLES.

THE PREVENTION OF BLINDNESS FROM CONTAGIOUS OPHTHALMIA.

Many of the causes of blindness are operative chiefly or wholly in middle or advanced age, when perhaps the greater part or whole of the active working life has been passed in the possession of normal visual power, or at least after visual impressions have played their full part in the mental development of the individual. Blindness from birth or from childhood is a very much more serious matter, since it deprives the individual of a most important group of powers by hindering their development, and impoverishes the community by crippling one of its possible workers throughout the whole of his productive life.

Statistics indicate that of all cases about twenty to thirty per cent. are due to contagious inflammations of the conjunctiva, and in a large proportion of these the blindness is produced in early infancy or childhood. The contagious ophthalmias that cause blindness may be classified into two groups: ophthalmia neonatorum, which causes blindness solely in the first few weeks of life; and trachoma, which in this locality is seen mainly among the inmates of orphan schools and asylums, or where children are crowded together in tenement houses. Blindness from these causes comes through disease of the cornea leading to its opacity, and is generally quite irremediable; so that the hope of diminishing it lies almost entirely in the direction of prevention. In this case prevention may be accomplished either by the prevention of the diseases which cause the blindness or by management of them in such a way that blindness shall not result.

In these days when disease-producing germs, the isolation of cases, and the methods of disinfectant treatment claim

so large a share of professional attention, ophthalmologists have taken a renewed interest in ophthalmias, the chronic forms of which had been regarded as the most tedious, laborious and unsatisfactory conditions with which they had to deal.

With regard to causative germs, ophthalmological bacteriologists have contributed comparatively little to the general fund of positive knowledge. A few who have undertaken systematically to search for bacteria have established the presence of the gonococcus in ophthalmia neonatorum. Andrews found this germ in all of 122 cases he examined. More than one form of bacteria has been described as the essential pathogenic organism connected with trachoma. But investigations of this sort have thus far not excited much interest among ophthalmic specialists, and have lead to no radical change in the methods of treatment. Probably, however, few, if any, doubt the existence of such specific organisms, or that their implantation is a necessary factor in the production of these diseases. And this faith in the essentially contagious nature of these affections has led to an active effort to prevent blindness from them by stamping out epidemics through the isolation of cases, and by more efficient disinfectant treatment.

For preventing the spread of trachoma isolation is entirely practicable, since for this purpose isolation means little more than such cleanliness and care of the toilet as well-to-do cleanly people always practise for their personal comfort.

Trachoma is almost confined to the comparatively poor and degraded, and among them it seems to spread seriously only when especially favored by the crowding together of particularly susceptible and infected subjects. In Philadelphia the great majority of cases are directly traceable to infection during a steerage passage from some European country, or to crowded orphan schools or asylums, and a

few cases arise in the overcrowded tenements of the lowest class. It is probable that the small number of cases of this disease presented in this city is due to the small amount of overcrowding—the small number of persons per house as compared with other large cities.

The important practical measures to be adopted then, are those directed to preventing the importation of cases infected in foreign countries or during the passage hither, and the prompt recognition, isolation and effective treatment of cases gaining admission to orphan schools and asylums. The first requirement is one of many that demand a better sanitary supervision of immigrants. The second is the proper attention on the part of managers of schools and asylums, which ought to be easily obtained, but by popular ignorance and indifference is often rendered difficult.

It needs to be reiterated and insisted upon that while the proper intelligent care of orphans is a most praise-worthy charity, the gathering them together to serve as a hot-bed from which to disseminate suffering and blindness is something quite different. It is to be hoped that the committee of the Medical Society of the State of Pennsylvania to look after this matter will be able to make some impression on the institutions of the State.

The opportunities for the transmission of trachoma are greatly increased by its extremely chronic course, and if, as is claimed, some of the methods recently introduced are capable of cutting it short, their application is of great importance in preventing the further spread of the disease.

The prevention of blindness from ophthalmia neonatorum is quite as much a question of treatment as of the prophylaxis. The principles and methods concerned are well-established, and have been clearly set forth in a paper by Dr. Schneideman in a recent number of the *Re-*

PORTER. The great obstacle to their efficient application is the failure to recognize the nature and gravity of the affection, on the part of those having the care of infants. Looking in this direction it is suggested that mid-wives be compelled, under liability of heavy fine for neglect, to promptly report every case of ocular inflammation to some health officer or responsible practitioner. It is probable that the adoption of such a law would at least bring the subject forcibly to the attention of many nurses and practitioners who at present do not recognize its importance. Even to agitate for its passage must have an excellent effect.

BOOK REVIEWS.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS. Vol. IV. For 1891. Philadelphia: Wm. J. Dornan.

This volume of the Transactions of the American Association of Obstetricians and Gynæcologists contains some very instructive matter from prominent men in these specialties. The last meeting of this society was held in the Academy of Medicine in New York City, and was attended by 43 of the 83 members composing the body. Among the many good papers contained in the volume, we specially note the following: "A Clinical Note on Intrauterine Irrigation After Labor," by Lewis S. McMurry, of Louisville. The subject is treated in a plain, practical and eminently surgical manner, and no one can fail to receive some valuable information regarding the indications for uterine irrigation, and the method of performing it, which is of first importance. Another valuable paper is by Dr. J. F. W. Ross, entitled "How Should we Proceed when Abdominal Tumors are Complicated by Pregnancy." An admirable article on "Femoral and Ventral Hernia in Women," was contributed by Dr. Henry O. Marcy.

The transactions are printed in book form and upon excellent paper. The wood cuts are all good and well illustrate important features in many of the papers. Everyone interested in the progress of obstetrics and gynæcology should read these contributions.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Published by the Society.

These transactions consist of the papers read at the Twenty-fourth Annual Meeting of the Society, which was held at the Arlington House, Washington, D. C., Sept. 22d, 1891, in connection with the Second Annual Congress of American Physicians and Surgeons.

While these transactions are chiefly of value to the aurist, still the general practitioner will find much useful matter in connection with his general practice. The volume contains, besides the proceedings, fourteen papers of excellent merit, embracing the latest knowledge concerning the science of otology. Some of the papers are exceedingly interesting, especially several dealing with the operative treatment of mastoid disease. The Society is to be congratulated on the good work it is doing.

CORRESPONDENCE.

BONE IN THE THROAT.

EDITOR OF THE MEDICAL AND SURGICAL REPORTER:

Seeing a report of cases of bones in the the throat in the **REPORTER** recently brings to my mind a case that came to me several years ago. A lady about fifty years of age was eating of baked chicken, and accidentally swallowed a bone, which lodged in the esophagus several inches below the pharynx. She immediately sent for a physician, who thought that in time it would work down; if not, it would require an operation. The patient became somewhat alarmed at her situation and sent for another physician, who likewise feared that an operation would have to be performed. He called me in consultation.

When I arrived, I found the patient eating Indian pudding and milk, some four hours after swallowing the bone, which she felt distinctly where it had first lodged. The family had devised this plan of swallowing something to take the bone down, but were taking only small quantities of milk and pudding, finely mashed, at a time. Liquids were also tried, but none of them were of any avail. I told her that the pudding and milk was the best plan they could have devised; but, instead of taking small quantities at a time,

she should take as large a spoonful of pudding as she could swallow without chewing it up, and that would distend the esophagus and take the bone along with it. I advised her to try it at once.

The attending physician then took me into an adjoining room to consult over the case. We were scarcely seated before her husband came into the room and stated that the bone had gone down. Only two mouthfuls were sufficient to dislodge the offending bone. JOHN M. CURRIER.
Newport, Vt., April 27, 1892.

LITERARY NOTES.

LITTLE THINGS.

It is curious to note that many things which have turned out most useful discoveries for man, having a great influence upon the lives and destinies of mankind, owe their beginnings to some slight accident.

It is said that the art of printing took its origin from some rude impressions taken (for the amusement of children) from letters carved on the bark of a beech-tree.

Gunpowder was discovered from the falling of a spark on some materials mixed in a mortar.

The stupendous results of the steam-engine may be traced to the boy who sat watching the steam which came from the nose of the tea-kettle.

Electricity was discovered by a person observing that a piece of rubbed glass attracted small bits of paper.

Pendulum clocks were invented after Galileo stood observing the lamp in a church swinging to and fro.

The telescope we owe to some children of a spectacle-maker placing two or more pairs of spectacles before each, other and looking through them at the distant sky. Their idea was followed up by older heads.

Sir Isaac Newton was sitting in his garden one day when he saw an apple fall from a tree. This common occurrence set him to thinking why things should fall down and not up, and this train of thought led him to the discovery of the law of gravitation.

Every one can now appreciate the importance of the slight matters spoken of, because the wonderful results are now before the world. But the beginnings of these things were treated with ridicule and

scorn. No matter how unimportant a circumstance appears, it is quite possible that great results may come from it. In a small building which was once Peter the Great's workshop in Holland is the inscription: "Nothing is too little for the attention of a great man."—*Harper's Young People.*

BABYHOOD, the mother's nursery guide, continues in its May issue the medical articles on catarrhal affections and their complications in children, and the treatment of the headaches of childhood. A good deal of space is devoted to the question of "What We Would Do With Him," the case being that of a particularly wayward and unmanageable child, whom a number of mothers would treat each in her own way. Under "Nursery Problems," advice is given as to the suitable time for weaning, the disagreeing of milk, learning to sit upright, constipation, taking cold easily, club feet, suspicion of worms, etc. There are also articles on "Dressing the Baby After Six Months," "Occupations and Amusements," "Primary Musical Education," etc.

THE MEDICAL DEPARTMENT OF THE GERMAN ARMY.

IN accordance with the principle that the maintenance of the efficiency of the army is the prime condition of final success, and that the care for the troops is one of the most important duties of the commander and the administration, the greatest attention has been paid in the German army to sanitary matters. The system is divided into the medical *personnel* and the sanitary institutions. The former comprises all sanitary officers, including the apothecaries, who rank with administrative officials, the non-commissioned surgeons and apothecaries, the hospital stewards, the nurses, and, in war, the men carrying away the wounded. The sanitary institutions comprise, in peace, the garrison hospitals and regimental wards for sick soldiers; in war, the sanitary detachments, the field hospitals, the war *etappen* and reserve hospitals, and the sanitary trains upon the railroads.

The highest authority in peace is the Medical Department of the Prussian War Ministry; in war, the chief of the sanitary service, who is attached to the head-quarters

of the army. Under the direction of the Surgeon-General of the army, a surgeon-general supervises the sanitary service of each army corps. In Bavaria and Saxony a sanitary department or a sanitary director takes the place of the Surgeon-General. In each division the surgeon oldest in rank has general charge of the sanitary affairs, while the practical work devolves upon the staff and assistant surgeons attached to every body of troops, who are in turn assisted by non-commissioned surgeons. All surgeons have the rank of officers, and occupy positions of absolute equality with the latter.

It may be mentioned here as a matter of interest that the death rate of the German army in peace is smaller than that of any other standing army. The same applies to the number of sick and disabled persons.

In war every sick or wounded soldier, as well as any person charged with the care for the same, is protected by the stipulations of the Geneva Convention. All those connected with the sanitary service carry, therefore, the well-known badge, the red cross on white ground, which is also painted on every wagon belonging to the service, while a flag showing the same emblem floats over every hospital. Red flags, or red lanterns during the night, make known at large distances the places where the wounded are collected and where the field hospitals are established.

Every soldier carries a small package of bandages, and around his neck a badge with his name, for purposes of identification. Every hospital steward carries a satchel with bandages and a bottle with restoratives, every surgeon a case of instruments. Every battalion of infantry or regiment of cavalry is followed by a medicine-wagon, filled with medicine and bandages, stretchers, and everything else necessary for the care of the wounded or sick soldiers during march or battle.

The voluntary medical service has become a valuable adjunct to the military sanitary service since it has been regulated by proper rules. It is under the direction of a commissioner appointed by the Emperor, and many excellent young men entered its ranks during the late war who were incapacitated from some cause for other service. Many eminent physicians devoted themselves likewise to care for the sufferers by accepting positions as consulting surgeons-general.—

From "The German Army of To-Day," by Lieutenant-Colonel Exner, in *Harper's Magazine* for May.

PERISCOPE.

THERAPEUTICS.

ICHTHYOL.

Among cutaneous diseases, Dr. Charles (*The Lancet*, Sept., '91) found ichthyol, in an ointment of two to ten per cent., especially valuable in burns of the first and second degrees and in scalds. Externally and internally, it was very efficacious in erythemata of unspecified nature. Several rapid cures of chilblains were obtained by washing with hot water and ichthyol soap, and subsequent application of ichthyol and turpentine, equal parts; of ichthyol and glycerine, equal parts; or of ichthyol, three parts, glycerin, water and dextrin, all ten parts. In intertrigo it was also useful, as well as in zoster and in eczema, in acne and acne rosacea, in sycosis and in psoriasis. He also found the ichthyol treatment very efficacious in boils, carbuncles and erysipelas.

MEDICATED SOAPS.

A. SANTI, of Bern (*Correspondenzbl. für Schweizer Aerzte*, No. 13, xxi. Jahrg. 1891), speaks in praise of medicated soaps, which, within the last few years, since they have been manufactured (especially abroad) to suit the requirements of the physician, have come into good repute. Soaps easily penetrate the epidermis: hence drugs are more active in this form than in ointments. The method is cleanly, cheap, and more agreeable to the patient than that of ointments. The soaps manufactured according to the formula of Unna are first considered. The soap-mass, in the first place, reacts absolutely neutral, and is composed of the best beef tallow and freshly prepared soda and potash lye, two or three (in summer) parts soda to one of potash, which latter acts more effectively than soda on the horny layer of the epidermis. To obviate the drying effect of even neutral soap on the skin, the soaps are all superfatted with about four per cent. free fat, for which purpose olive oil is used. The following soaps in cake form

are mentioned. They contain marble, ichthyol, salicylic acid, zinc oxide and salicylic acid, tannin, tannate of soda, oxide of zinc and tannate of soda, zinc tannate, rhubarb, tar, sulphur, tar-sulphur, camphor, camphor-sulphur, iodide of potassium, soda and naphthol-sulphur.

A superfatted potash soft soap has also been made by Unna and Micek.

THE TREATMENT OF ACUTE MUSCULAR TORTICOLLIS.

This disease has been recognized for many years, but has not received very extensive notice at the hands of systematic writers upon the diseases of children. Acute torticollis generally appears suddenly, perhaps after rapid motion of the affected parts, or it may appear spontaneously. The pain may be intense, even after the slightest exertion, and this is the most prominent symptom. It is located in the cervical region, but may include the entire area of the trapezius muscles. With the pain there is also muscular contraction causing more or less distortion of the head and neck. The top of the trapezius muscle is the initial location of the contraction in the majority of cases. In the spasmodic form of the disease there is clonic contraction of the muscles. In addition to the symptoms mentioned, there may be malaise, loss of appetite, slight fever, and insomnia. The contracture diminishes after a few days, the pain becomes less severe, and the head resumes its normal position. The disease is especially common in childhood and adolescence, it is rare in adults and old age. It is more common in boys than in girls. It is related to rheumatism, and is sometimes called *torticollis a frigore*. Syphilis associated with rheumatism is also an occasional cause. Cervical arthritis may result in an osseous torticollis which sometimes resembles acute muscular torticollis. Rheumatic or scarlatinal arthritis may also simulate it. Acute muscular torticollis may also resemble lumbago, the latter being sometimes exclusively of a muscular character and the cause of rheumatism, or muscular rupture. With reference to contractures, two varieties of torticollis may be mentioned: (1) that form which is caused by muscular effort, true traumatic torticollis, in which the contracture is caused by the slight twisting of the cervical articulations, perhaps

by the rupture of muscular fibres. (2) the spontaneous form which results from mild arthritis in the cervical region, or from idiopathic muscular rheumatism involving the muscles of the neck. The acute form of torticollis resembles the chronic one, but in the former the symptoms improve and disappear, in the latter they persist and become aggravated. The acute form is usually recovered from, even though it may be untreated, but it may pass into the chronic form if neglected. Rest, warm applications, and anodynes subcutaneously will relieve the pain in most cases, but an exclusively medical treatment is not very efficacious nor practical. Other useful means of treatment are massage, suspension in Sayre's extension apparatus, and electricity.—Chocas, *Rev. Mens. Mal. Enf.* Oct. 1891.

BENZINE IN TRICHINOSIS.

In a case where a large number of persons had partaken of pork which was discovered a few hours later to have been plentifully supplied with this detested infection, a physician administered 40 minims of benzine in capsules and followed it by a cathartic. Not one of those thus treated was afterward known to have suffered from trichinosis.

THE TREATMENT OF IMPOTENCE IN MEN.

DR. VICTOR V. GYURKOVESKY, in the *Wiener medicinische Presse*, 1891, presents two papers (No. 46, S. 1738; No. 47, S. 1780). He reports complete cure by suspension in Sayre's apparatus in three cases of sexual neurasthenia. In cases where this condition is the result of gonorrhœa, he anoints his catheter or endoscope with balsam of copaiba to get its effect upon the mucous membranes, makes a thorough examination and cures the local condition. He has treated with benefit one case, and to no effect one case of masturbation (a most frequent cause of impotence), by hypnotic suggestion. In sexual neurasthenia he has treated two cases by hypnotic suggestion, one to a cure and the other with benefit, although he is yet under treatment. From these cases he concludes that hypnotic suggestion is a powerful remedy for masturbation, pathological pollutions, and the various forms of impotence.

THE TREATMENT OF CYSTITIS WITH MERCURIC CHLORIDE.

GUYON (*Annal. des Mal. Génito-urinaires*, xi.) recommends mercuric chloride in the treatment of cystitis. The results are especially good if the cystitis be tuberculous. Irrigation or instillation may be employed. The mercurial solution may vary from 1:5000 to 1:1000. At first, from twenty to thirty drops are instilled, by means of a syringe, into the prostatic urethra, the quantity being gradually increased to a dram. The bladder must be evacuated after each instillation. In gonorrhoeal cystitis, good results were obtained from instillations of silver nitrate, 1 or 5: 100. — *Münchener med. Wochenschr.*, 1892, No. 5, p. 81.

TREATMENT OF GRIP.

DR. ROLAND G. CURTIN, in the *Therapeutic Gazette*, writes: For the first time since 1889, a recurrence to old therapeutic measures has been of service. The fever mixtures of antiquity seem at least to allay fever, induce quiet and sleep, produce perspiration, and hasten recovery. The standard saline and other fever mixtures seemed to be again efficacious.

For the initial symptoms, salicin still seems to be the best and safest remedy, both as a tonic and an antipyretic, in doses of from 10 to 30 grains. Each dose will often be followed by marked relief, and the occurrence of perspiration, with a fall in temperature. No remedy seems to show the same direct results, unless it be antipyrin or phenacetin, which are decidedly more unsafe, though not so unsafe as in the preceding years, since the tendency to dangerous heart failure seems now much more rare. Salicin may be combined with small doses of phenacetin, antipyrin or sodium salicylate.

The formula most agreeable is, —

R Salicin, 3iii;
Sodii salicyl., 3ss; vel Phenacetin, gr. xvi;
Syrup. acacis, ℥vii;
Aqua, ℥ix;
Olei gaultheris, gtt. xv.
Sig. — Teaspoonful every hour or two. M.

For the delirium and insomnia, sulphonal is the best and most efficacious soporific.

Ammonium iodide, in 2-grain doses every hour, until iodism is produced, hastens recovery in the later stages of pulmonary catarrh and asthma.

Ammonium chloride has proved more useful this year than heretofore.

Nausea is best controlled by cocaine, in doses of $\frac{1}{2}$ grain every two hours in solution. In severe cases feeding by the stomach must be withdrawn and rectal feeding employed, champagne and plain soda-water from the siphon being given to quiet the stomach and allay thirst.

Catarrhal jaundice has been frequently observed, generally in children, and treated by small doses of calomel and sodium phosphate, with speedy recovery.

In any case with *bilious* vomiting, 2 grains of bicarbonate of sodium and $\frac{1}{2}$ grain of calomel may be employed until some action of the bowels has been produced.

A SPECIFIC FOR TETANUS DISCOVERED.

Dr. R. Schwartz, of Padua, announces the successful treatment of tetanus by means of injections of the tetanus antitoxin of Tizzoni and Caltani. These experimenters succeeded in producing immunity against tetanus even in animals susceptible in a high degree, and have shown that the blood-serum exerts an antitoxic action, and is capable of producing immunity against and cure of the disease. They succeeded in obtaining this tetanus antitoxin in a solid state by the addition of alcohol to the serum, and by drying the precipitate *in vacuo*. — As the disease in man is of a longer duration and less certainly fatal than in many animals, there seemed to be good reason to hope that the tetanus antitoxin might be of great value. Gagliardi, of Molinella, treated a severe case by hypodermic injection of one gramme. All symptoms of tetanus disappeared and complete recovery ensued. Schwartz relates at length the case of a peasant boy, aged fifteen, treated by him.

ANTIPYRIN IN HEPATIC COLIC.

DR. KRAUS (*La Semaine médicale*, No. 61, 1891) recommends antipyrine in hepatic colic. Given in the beginning, it calms the pain, and even may abort the attack; if administered later, it exerts an injurious influence, and may aggravate the patient's condition. Here morphine replaces it, and, when an attack has lasted two or three hours, an injection of morphine, instead, should be immediately given.

EARACHE.

Take five parts of camporated chloral, thirty parts of glycerine, and ten parts of oil of sweet almonds. A piece of cotton is saturated and introduced well into the ear, and it is also rubbed behind the ear. The pain is relieved as if by magic, and if there is inflammation it often subsides quickly. —*Medical Brief.*

ACUTE IODISM AND ITS DANGERS IN SYPHILIS.

E. Finger discusses this subject in *Gazette Lekarska* (No. 24, 1891). The headache may reach an alarming intensity, symptoms of cerebral compression, vomiting, vertigo, delirium, staggering gait, somnolence and coma may supervene. One case showed alarming depression of the heart's action. Neuralgias of the cerebral nerves often occur. These symptoms are probably due to an increased cerebral circulation in vessels which have undergone specific alterations. Consequently caution is necessary in the administration of iodides in patients showing cerebral symptoms. The best method of obviating unpleasant effects is to give the iodide in milk; Belladonna may be added, as well as potassium bromide.

BROMAMIDE, A NEW ANTIPYRETIC AND ANTINEURALGIC REMEDY.

Dr. Augustus Caillé, writes in the *N. Y. Medical Journal*: This drug is described by its discoverers, Messrs. F. H. Fishedick and Charles E. Koechling, of New York city, as a new bromine compound of the anilide group containing seventy-five per cent. of bromine ($C_6H_4Br.NH.HBr$).

It is in the form of colorless, needle-shaped crystals nearly odorless and tasteless, insoluble in hot or cold water, slightly soluble in cold alcohol, and soluble in sixteen parts of boiling alcohol. Chloroform, ether, and the fixed oils dissolve it, but it is insoluble in benzine. Its action toward litmus paper is neutral. It is a very stable compound; not being affected by any of the ordinary reagents. It melts at $243^{\circ} F.$, and volatilizes at $310^{\circ} F.$ Without change, subliming in beautiful feathery crystals.

Bromamide was first given to dogs and rabbits, in doses of 2 grammes (30 grains), without noticeable deleterious influence and without affecting the composition of the blood in these animals. The administration of from 0.6 to 1 gramme (10 to 15 grains) to healthy adults was followed by a slowing of the pulse *without sweating*. The administration of 0.06 to 0.2 gramme (1 to 3 grains) to children from one to three years of age was accomplished without untoward symptoms.

The experiments as to the therapeutic properties of bromamide were carried on at the German Hospital from June 1 to November 1, 1891, and suffered embarrassing interruption in the beginning of the experimental term, in consequence of the resignation of the entire house staff. Bromamide was administered in the following class of cases: Typhoid fever, acute articular rheumatism, chronic rheumatic arthritis, chronic nephritis, acute fibrinous pneumonia, rheumatic fever with acute endocarditis, general and localized dropsy due to hepatic, renal, or cardiac disease, and diverse forms of neuralgia; and special attention was given to a possible antipyretic, diuretic, diaphoretic, antineuralgic, and sedative action of the drug.

Bromamide was administered symptomatically in a number of cases of neuralgia from various causes.

1. Compression myelitis, with intercostal neuralgia. No beneficial effect from 10 to 20 grains of bromamide.

2. Premenstrual headache, 15 grains of bromamide; marked relief in two hours.

3. Reflex hemicrania from carious tooth; 15 grains of bromamide; relief in three hours.

It will be seen from a perusal of the foregoing that the trials thus far made are encouraging, and may warrant further experiments, especially in other forms of disease.

Bromamide has the power of reducing the temperature in most cases of febrile disease from 1° to $2.5^{\circ} F.$, without the excessive sweating as produced by other antipyretic drugs. It has, according to the above-recorded experiments, no pronounced diuretic action, and it is, so far as could be ascertained, free from unpleasant symptoms as regards the digestive tract. The lancinating abdominal pains noticed in several of the severe forms of disease can not fairly be attributed to the use of

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bromamide, because such phenomena were never observed when the drug was administered to healthy subjects.

Bromamide can safely be given in 10- to 15-grain doses several times a day, as an antipyretic and anti-neuralgic to adults, and in doses of from 1 to 5 grains to children. It may be given in capsule, in water, or dry upon the tongue, or suspended in a fluid.

In conclusion, I take pleasure in expressing my indebtedness to Dr. Kurth, Dr. Inglis, and Dr. Moscovich, of the house staff, for valuable assistance in securing these notes.

MEDICINE.

A NEW METHOD OF MEASURING THE CAPACITY OF THE STOMACH.

At the recent Italian Medical Congress, Forlanini (*Rif. Med.*, October 24, 1891) proposed a new method of ascertaining the presence of dilatation of the stomach. He passes an œsophageal sound into the stomach, and by its means distends the organ with air, in no case using a pressure of more than seven or eight centimeters of water; the air is then withdrawn by means of an aspirator and its volume ascertained. By always using the same amount of pressure when injecting, the effects of any treatment on dilatation of the stomach can be readily ascertained.—*Brit. Med Jour.*

THE ANTISEPTIC FUNCTIONS OF THE LIVER.

DUJARDIN-BEAUMETZ (*Gazette Hebdomadaire de Médecine et de Chirurgie*, Aug. 15, 1891), writing concerning the antiseptic functions of the liver, says that while, at the present day, it is proved beyond doubt that the liver possesses antiseptic powers, there are no signs which show definitely when this function is being properly fulfilled. The problem has been approached in various ways. Hayem and Tissier claim that the presence of urobilin in the urine is a sign of a morbid condition of the hepatic cells. The presence of urobilin is easily detected by the spectroscope. It is certain that its presence indicates some derangement of the liver-cells, but such derangement often exists without any urobilin in the urine. Roger claimed that a corre-

lation exists between the glycogenic and antiseptic functions of the liver, and it is only necessary to determine the condition of the former to judge of the latter. But this is not to be relied on. A third method of determining the condition of the antiseptic function of the liver is by determining the toxicity of the urine. But this is not reliable, as jaundice is frequently present, and bile is much more toxic than the urine. To maintain the integrity of the antiseptic function, we must attempt to increase the glycogenic power and to shut off the supply of poison. The first object is attained by a nourishing diet and by keeping down the temperature; the second by intestinal antiseptics, favoring elimination and diminishing cellular activity.

The best antiseptics are salol and bismuth salicylate. Purgatives are of use only when there is constipation. Favor diuresis by copious draughts and by mild alkalines, and keep the skin active by baths and friction. Forbid meat and hard work, either bodily or mental.—*Univ. Med. Mag.*

PATHOLOGY OF THE NERVE PLEXUSES OF THE INTESTINES.

Bouome (*Archivio delle Scienze Mediche*) after an extended series of researches, comes to the following conclusions:

1. Extirpation of the celiac ganglion, with partial destruction of the solar plexus, produces constantly in rabbits atrophy of intra-intestinal nervous plexus, accompanied with profound atrophy of the liver and spleen and general marasmus.

2. Atrophy of the intestinal plexus and general marasmus are more pronounced when there develop neuromata and fibro-neuromata after the extirpation of the celiac plexus.

3. There exists no relation between the nutritive activity of the intestinal plexuses and the muscular tone of the intestines.

4. Obstructing the circulation in the intestines produces throughout the entire length of the intestine where such obstruction exists, a true necrobiosis of the plexuses of Meissner and Auerbach.

5. In cases of a chronic saturnism, the author observed complete degeneration of the plexuses of the intestine, accompanied with an advanced sclerosis of the semilunar ganglion and of the entire solar plexus.

6. In individuals with chronic catarrh of the intestines, the author observed simple and pigmented atrophy of the plexuses of Meissner and Auerbach.

DIAGNOSIS OF LESIONS OF THE OPTIC LOBES.

Eisenlohr reports the case of a young man, twenty-eight years of age, who was struck in the head with a bullet from a revolver, the ball being found in the tubercula quadrigemina at the necropsy, who developed the following symptoms:

1. Tremor of the left arm, with unequal pupils, following secondary irritation of the pyramidal tract.

2. Associated paralysis of the eye-muscles, with diminution of the acuteness of vision, this latter symptom being due to a lesion of the optic lobes, the ophthalmoplegia depending upon a concomitant lesion of the nucleus of the oculo-motorius.

3. Polyuria without glycosuria, cerebellar ataxy, and finally symptoms of cerebral compression. The writer emphasizes the existence of visual and pupillary disturbances in lesions of the optic lobes.—*Rivista clinica e Terapeutica*, 15, 1891.

RECURRING OCULAR PARALYSIS.

In the *Riforma Med.* quoted in a recent *Centralbl. für Klin. Med.*, Massalongo directs attention to the condition of so-called ophthalmoplegic migraine. This was at first regarded as a periodic or recurring weakness of the third nerve, depending upon an affection of the nuclei until Charcot first gave it the name which we have used above. The author found at a necropsy on a patient suffering in this way that the symptoms depended on an inflammatory process or a new growth in the pia at the base of the brain, which affected the nerves which were pressed upon, and so increased the vaso-motor effects to which the varying conditions by exposure to cold, excitement, depression, menstruation, or dyspepsia gave rise. Such an explanation of the phenomena in one case suggests the possible presence of a demonstrable lesion in others to account for symptoms which, although associated with headache, have probably no necessary connection with migraine.

SURGERY.

THE TREATMENT OF REDUCIBLE HERNIÆ BY THE INJECTION OF ALCOHOL.

Edward Steffen of Zurich, during the past three years, has treated 326 cases of reducible herniæ by Schwalbe's method, and has published the results in the *Correspondenzblatt für Schweizer Aerzte*. In most instances the patients were able to continue their work during treatment. After the injection the puncture was cleaned and covered with mercurial collodion. Notwithstanding, in a few cases, sloughing took place; but this acted rather beneficially than otherwise. The number of injections in a single case varied 6 to 168, the latter extending over a period of two years and a half. A medium-sized rupture in an adult required from 80 to 100 grammes of alcohol. The author used alcohol 70 per cent. in doses of one to four grammes, substituting in exceptional cases extract of oak bark. Latterly he found the addition of phosphoric acid, in the proportion of 1 to 200, advantageous. In thirteen cases the result of the treatment is not known, in twenty-nine a cure was not possible from various causes, such as obesity or size of the rupture; of the remainder, 245 cases are reported cured and 19 improved. The longest time taken to effect a cure was four years, the shortest one year. Of 257 inguinal herniæ, 216 cases were cured and 16 improved, with 23 relapses. Of 13 femoral herniæ, 9 were cured and 2 improved, with one relapse. Of 19 umbilical herniæ, 17 were cured, with no relapse. Of 4 herniæ in the linea alba, 3 were cured, the other improved. It appears that the more recent the herniæ and the younger the patient the more favorable the prognosis, and the ambulant treatment, with intervals of three to seven days between the injections, gave better and more lasting results than the treatment in bed with daily injections.—*Lancet*.

INDICATIONS FOR COLOTOMY.

Dr. Kelsey, (*Therap. Gazette*, Jan. 1892) gives the following indications for the performance of colotomy:

1. In all cases of cancer which cannot be completely extirpated, where the disease is liable to produce any degree of ob-

struction, or is broken down and discharging into the rectum. It is possible to have cancer near the rectum which will cause no symptoms referable to the rectum, and hence furnish no indications for operation.

2. In all cases of incurable non-malignant ulceration where the disease is too extensive to admit of complete resection of the ulcer.

3. In all cases of threatened obstruction where the obstruction cannot be permanently overcome by attacking it directly; for example, the obstruction due to old pelvic cellulitis in women.

4. In all cases of recto-vesical fistula.

5. In cases of congenital malformation where the rectal *cul-de-sac* cannot be dissected out and brought down to the surface.

THE VARIOUS SURGICAL PROCEDURES DEvised FOR THE RELIEF OR CURE OF TRIGEMINAL NEURALGIA (TIC DOULOUREUX).

Victor Horsley says neuralgia is a term of somewhat vague import, merely implying the existence of pain as a result of some morbid condition of the nerves. The nerve affected in this case is the fifth, or trigeminal. Pain may be situated in any part of its region of distribution, and may depend upon an affection of any branch of one of its three main divisions; pain is peculiar in several respects. It is intense and paroxysmal with frequent intervals of freedom which may extend over days or hours, or may be limited to only a few seconds. It is often confined to a particular branch of one of the divisions, and may extend to all three divisions of the nerve. The tender spots, or foci, were first pointed out by Valleix and are as follows: The supraorbital notch, the junction of the nasal bone and cartilage where the nasal nerve emerges, and the inner angle of the orbit where the trochlear branch becomes superficial. Other points, which are less frequently the seats of pain, are the upper eyelid and the eyeball itself. In the second division the most common foci are the infraorbital foramen and the malar foramen in the malar bone. In the third division the inferior dental nerve and the lingual are the most common seats of severe pain, sometimes experienced in the auriculo-

temporal region just in front of the ear, and rarely in the lower lip. The author recommends the treatment by drugs being thoroughly tried. Probably the best results are got from quinine, especially in combination with arsenic, and from gelsemium; antipyrin is also useful in some of the slighter cases. Opium can only be regarded as a palliative. Chloride of ammonium is sometimes efficacious, and aconitin is recommended by Dr. Seguin. Counter-irritation in the form of blisters over the point of emergence of the nerve, or along its course, are also useful, and not infrequently give great relief. Chloride of methyl may be mentioned, but its efficacy, he thinks, in this condition would be slight. Galvanism is good in some cases. The operative procedures are of four different kinds, namely, nerve-stretching, nerve-division, or neurotomy, the excision of part of the nerve, or neurectomy, and nerve-avulsion. Another way in which a part of the nerve is occasionally destroyed, is by thrusting into the foramen of exit a red-hot wire, but there is reason to suppose that it will never come into general use. He proceeds to consider in detail the different branches of the fifth nerve; to describe the operations themselves, and the various modifications which they have from time to time undergone, and the results which may be hoped for from them. — *British Med. Jour.*, Nov. 28, 1891.

OBSTETRICS.

INTRA-UTERINE TRANSMISSION TO THE FETUS OF PATHOGENIC BACTERIA.

Lubarsch's (*Rev. Mens. des Mal. de l'Enf.*, September, 1891) investigations were made upon rabbits, guinea pigs, and rats, thirty-nine in all, with 106 fetuses. Sub-cutaneous, intra-venous, and intra-peritoneal methods of inoculation were practiced with cultures of anthrax, the pneumo-coccus of Fränkel, and the *bacillus enteritis* of Gärtner. The following results were observed: Of seven rabbits, which were allowed to die from anthrax, transmission to the fetus was observed in two cases by means of the microscope and cultures, in one case by means of the microscope alone, and in one case by cultures alone. Of twenty-one guinea pigs, positive results were demonstrated in six cases with

the microscope and cultures, in two by cultures alone, and in two by the microscope alone.

Of three rabbits, which were inoculated with the pneumo-coccus, positive results were determined in two with the microscope and cultures. One guinea pig was inoculated with the *bacillus enteritis*, the result being negative. How can we explain the inconsistent transmission of the micro-organism to the foetus?

The author does not concede that pathological modifications of the placenta, from hæmorrhage, etc., play the preponderating rôle, which has been attributed to them by Wolff, Malvoz, Virchow and Birco-Hirschfeld.

He believes, rather, as the result of his experiments, that the bacilli can traverse intact epithelium, and that this does occur in the transmission of the bacilli to the foetus. If this transmission does not occur very frequently, it is due to the fact that the micro-organisms, and especially the bacteria of anthrax vegetate for only a very short time in the placenta, and that proliferation in the animal organism varies with the species, and is often very limited.

PARTIAL STARVATION OF THE FŒTUS IN CASES OF CONTRACTED PELVIS.

In discussing premature labor (*Amer. Jour. Obst.*, March, 1892), Dr. Bettman says: This paper would not be complete without reference to an entirely new solution to the question of moderately contracted pelvis proposed by L. Prochownick, of Hamburg, in August, 1889. Prochownick tried the novel experiment of stunting the growth of the foetus in utero by starving the mother, or, rather, by placing the mother on the ordinary diet for diabetics. His first patient had been delivered of four children; two prematurely, one by version, one by perforation; and all the infants had perished. Toward the close of the fifth pregnancy the patient was placed on the strict diet, and was delivered at term of a healthy infant weighing five pounds, three ounces, with adipose layer practically wanting, and with very movable skull bones. The infant developed rapidly and normally. Encouraged by his success, he repeated the experiment in two similar cases, and both the infants were born thin, had movable skull bones,

and thrived perfectly. Thus three mothers who had born eight dead children were enabled by these means to rear living offspring. Prochownick as found imitators, and in March, 1890, A. v. Brehm reported a fourth successful case in the St. Petersburg *Medicinishe Wochenschrift*.

The departure of Prochownick is so novel, is based on such rational physiology and has been so signally successful that it merits not only the general attention of the obstetric world, but also general imitation in appropriate cases.

GYNECOLOGY.

CONGLUTINATIO LABIORUM.

SÄNGER (*Centralbl. f. Gynäk.*, in December 12th, 1891) read, before a recent meeting of the Leipzig Obstetrical Society, a paper on two distinct forms of adherent labia. The first variety was seen in a robust little girl, aged 3. The external labia were normal, the nymphæ seemed completely hidden. A thin membrane of the mucous type united the labia majora, looking at first sight like a hymen. It could be pushed downwards by the finger introduced into the rectum. It reached forwards to the clitoris, close behind which organ and a little to the left of the middle line lay a very minute orifice in the abnormal membrane, through which the urine could pass in a full stream. On passing a probe into this orifice and backwards, it could be plainly felt through the membrane, and on gentle pressure the membrane was torn through, with but slight hæmorrhage. The normal vestibule then came into view. The membrane proved to be simply the labia minora united together. The case was an example of Bókai's "epithelial union" of the labia, of which that observer described thirty-nine cases. It was clear that minute vessels ran in the uniting tissue. The second case was in a woman, aged 21, who consulted Säger concerning an impediment to connection and irregular painful menstruation, with free show. The vestibule easily allowed the passage of the finger, but the introitus was reduced to a slit three-fifths of an inch long, immediately in front of the perineum. From this slit forwards to the mons veneris extended a broad and very conspicuous membrane, which stretched across between the labia majora, which it completely cov-

ered as far as the hair on each side. This membrane was over 2 inches long and over 1 inch broad. It was pigmented so as to appear of a brownish tint, and bore scanty hair. There was a little depression on its surface close to the mons. This membrane was marked with a kind of median raphé, paler than the general surface, and a number of thin streaks converged from without and before backwards till they joined the raphé. The finger could be passed under the membrane, which consisted of the labia majora fused together. The patient was narcotised, and a grooved director passed under the membrane, which was then cut through with scissors. There then appeared a longitudinal wound in each greater labium. Each wound was closed by an interrupted silk suture. The labia minora were ill-developed, the clitoris and its prepuce elongated and curiously flattened. The patient also had endometritis and congenital ectropion of the cervix, which was treated by scraping and the thermo-cautery. This patient, as her mother remembered, had been subject when a year old to a free yellow discharge, with great external soreness. It was treated by ablution and the application of potato meal; gradually a skin seemed to grow across the parts and the discharge ceased. The discharge was probably a vulvo-vaginitis, and may explain the true nature of many cases of so-called "congenital" conglutination labiorum.—*Brit. Med. Jour.*

GLASS PESSARY WORN TWENTY-FIVE YEARS.

R. A. Murray (*N. Y. Journ. of Gynec. and Obst.*, January, 1892) recently exhibited before the New York Academy of Medicine a glass ball, hollow within, which a woman, aged 78, had carried in her vagina for about twenty-five years. He had considerable difficulty in removing it.

PEDIATRICS.

STROPHULUS INFANTUM.

GERBERT (*Archiv für Kinderheilkunde*, 1891, Bd. xiii., Heft 3), with this title considers urticaria papulosa, or the lichen urticatus of older authors, and is of the opinion that hot baths, frequently repeated, act in producing the eruption. As the patients are often anæmic, iron is found

useful, and for the itching small doses of antipyrine at night. The body should be sponged with dilute and cold vinegar at bedtime.

ANTIPYRINE IN CHOREA.

In a paper recently read before the Société Médicale des Hôpitaux de Paris (*Bull. et Mem.*, Dec. 25, 1890,) Dr. Charles Legroux states the results of the treatment of chorea by antipyrine in sixty cases observed throughout their course. He found that antipyrine had a beneficial effect in two-thirds of the cases, rapidly diminishing the intensity of the disease and shortening its duration; recurrence, however, took place in three-fifths of the cases. In the cases in which the drug failed this was found to be due in some instances to intolerance (vomiting, diarrhœa, etc.) or to cutaneous eruptions; in a few cases the drug seemed to have no effect on the disease. He found it necessary to give large doses and to reach the maximum dose in a short time. Between the ages of six and fifteen doses as high as three to six grammes (about 3 iss to 3 iij) a day were well tolerated for several weeks. Serious symptoms of poisoning were never observed, and in some cases in which an eruption or vomiting was at first noticed, when the use of the drug was resumed after a short interval, these symptoms did not recur. None of the cases treated had any rheumatic symptoms, but none were of a serious character.—*Medical Annals.*

INTUBATION AND TRACHEOTOMY.

In a report of these operations done at the Boston City Hospital, Drs. Prescott and Goldthwaite (*Boston Medical and Surgical Journal*, No. 27, 1891) drew the following conclusions: Three hundred and ninety-two cases of intubation, and 139 cases of tracheotomy have been reported, with a mortality-rate of 79.59 per cent. in the former, and 88.5 per cent. in the latter; 2,815 cases of intubation, and 24,941 cases of tracheotomy have been collected and analyzed, showing comparatively no difference in the mortality-rate of the two operations. The results depend more upon the nature of the epidemic than upon the operation. With intubation the results depend more upon the skill and experience of the operator than with tracheotomy.

Thirty-seven cases were seen at least a year and a half after recovery from intubation, with perfect voice, and with nothing that would indicate any ulceration from pressure of the tube.

THE TREATMENT OF DIPHTHERIA.

To what extent principles of treatment of cases of infective disease may be modified by the acquisition of true knowledge concerning the true nature of such affections is well shown in a paper read recently before the Clinical Society of Paris by M. Barbier, in which he dealt with the subject of diphtheria (*La France Médicale*, Jan. 1, 1892). He pointed out that the researches of Klebs, Loeffler, Roux and Yersin, and others have now conclusively established that the pathogenic agent is a bacillus which is only to be found in the false membranes, and does not penetrate either the blood or tissues. That discovery decides the much disputed question of the "local" or "general" nature of the malady. The "false membrane is the disease," and the primary object of all medication must be to detach and remove it wherever it is accessible; for one removes thereby not only the morbid agent, but the toxalbumens which the microbe elaborates, and which are the source of the symptoms. But experiment also teaches that the bacillus does not develop on healthy or non-excoriated mucous membrane, and it is therefore of chief importance that the false membrane should not be detached violently, but gently and slowly. Cotton wool held in forceps gently, and with frequent, patient repetition brushed over the false membrane, will gradually detach it; but care must be taken not to touch any other part. This is the first step. The next is to apply to the affected area such an antiseptic solution as has been proved by experiment to destroy the bacillus. Under M. Grancher, M. Barbier had largely studied this subject experimentally, and found carbolic acid to be the best parasiticide for this purpose; and he now recommends the application of a mixture of sulphovicianic acid (100) and carbolic acid (20) as more efficacious than carbolic acid and glycerine or olive oil, as hitherto adopted. This "phenol sulphovicianic" causes a transitory sensation of heat and burning, but its

taste is not very pronounced, and, he says, children tolerate it well. Moreover, although frequently applied—every hour by day, every two hours by night—M. Barbier has never seen any sign of carbolic poisoning. Before applying it each time there should be practised free irrigation of the naso-pharynx, which aids in detaching more membrane, the warm water being rendered antiseptic by the addition of a small quantity of an alcoholic solution of salol (1 in 40). He claims for this procedure, vigorously carried out, a marked amelioration in the more serious signs of infection—the redness of the throat, glandular swelling, constitutional symptoms and albuminuria. Similar principles he applies to the after-treatment of tracheotomy in laryngeal diphtheria; and he advises the prescription of calomel and naphthol to promote intestinal antiseptics, rendered necessary by the swallowing of portions of membrane detached from the fauces. Then general tonic treatment, with plenty of fresh air and sunlight and avoidance of close rooms and steam. He gives no statistics, but he claims to have seen many good results from adhering thus rigidly to the teachings of the laboratory; and certainly there is no greater field for the study of diphtheria than the Paris Hôpital des Enfants Malades, where M. Barbier's observations have been made.—*Lancet*.

HYGIENE.

THE DIGESTIBILITY OF CHEESE.

It is the general opinion of the laity that the eating of cheese after taking food is an assistance to digestion. This view seems not to be in accord with the result of experiments made by von Klenze, as recorded in the *Allgemeine medicinische Central-Zeitung*, Number XVIII, 1891. He made very thorough tests of the various forms of cheese found in the dietary lists. For the experiments he used an artificial digestive fluid, to which were added fifty cubic centimeters of fresh gastric juice and three cubic centimeters of hydrochloric acid. Into this he placed a gramme of the cheese to be examined. Eighteen varieties were tested, and the following deductions made: Chester and Roquefort cheese took four hours to digest; genuine Emmenthaler, Gorgonzola and Neufchatel, eight hours; Romadour, nine

hours; and Kottenberger, Brie, Swiss, and the remaining varieties, ten hours. Considering that in a healthy stomach digestion after an ordinary meal is completed in from four to five hours, it would seem from von Klenze's studies, that Chester and Roquefort cheese were the only kinds that were likely to be digested within this length of time, and that the other varieties, some of which are largely in use, not only did not assist digestion, but actually retarded it.—*New York Medical Journal*.

TO PREVENT THE SPREAD OF ENTOZOA.

Dr. Prospero Sonsino advocates the following sanitary measures to prevent the dissemination of entozoa among human beings:

1. If possible the sewers should empty their contents into the sea, but never into a stream. The adoption of a system of irrigation is advisable, if the above is not practicable, provided that the irrigated soil is planted only with such vegetables as are eaten in a cooked state, or better still, with plants which are not edible.

2. If the above-mentioned measures cannot be employed, and the destruction or disinfection of fecal matter cannot be carried out in general, these precautions should at least be adopted in asylums, schools, and hospitals—the excreta being disinfected by heat, sulphuric acid (10 per cent.) or large quantities of lime.

3. Persons engaged in certain kinds of work—such as in mines, tunneling, rice plantations, etc., should be compelled to defecate at places where the fecal matter can be disinfected. The feces of newcomers should be microscopically examined for entozoa before they are allowed access to the works, and it would be well to examine them periodically, so as to remove the infected persons at an early period.

4. Veterinary inspection of slaughter houses should be made daily, and all organs and parts of slaughtered animals which are found to contain entozoa.

5. The admission of persons infected with entozoa into hospitals should be made easier than it is now.

6. The pens in which hogs are kept should be inspected.

7. Dogs should be kept away from slaughter houses.—*Centralt. f. d. Medizin. Wissensch.*, No. 2, 1891.

FETID FEET.

The cause of this unpleasant ailment is to be found in the unnatural custom of wearing shoes. Nature contemplated a shoeless animal when she made man, and she so arranged the epithelium on the soles of his feet as to provide for a reproduction of the layers worn off in walking. So well suited to man's necessities was this arrangement, that Parkes, after discussing the merits of various foot-gear, concludes that the best shoe for soldiers is no shoe at all. But man had to improve on nature, and the way he has done it is by encasing the foot in an impermeable casing of tanned leather. This prevents the removal of the epithelium from the sole, and also prevents the escape of perspiration, which, keeping the dead epithelium moist, infallibly renders it odorous.

The reason why washing does not relieve this is, that soap and water alone are insufficient to remove the epithelium. No amount of rubbing will do this, and it is doubtful if anything short of a vigorously wielded scrubbing-brush will do so. But the Greeks had something better even than this. Some of our readers will remember the description given by Xenophon of the games instituted by Cyrus, before his march to the field of Cunaxa, and that among the prizes given to the victors were "golden flesh-scrapers." Not even a brush equals in efficiency the scraping with some metallic instrument, like a dull paper-cutter.

We should recommend, therefore, for fetid feet, that the sufferer should soak the feet in hot water, and scrape them well, every night, until the nuisance is abated; and to keep this up weekly thereafter, with morning ablutions of cold water with no soap, but followed by vigorous rubbing with a coarse towel. This is better than all the salicylated powders or ointment.—*Times and Register*.

IS GERMINATION INDUCED BY MICROBES?

In an article appearing in *The Microscope*, Dr. Henry Thimer sets forth that in his estimation he has discovered a specific microbe, a micrococcus, which, entering into the seed cells, produces a special ferment which is instrumental in germination. This microbe is provisionally called *Micrococcus germinatus*. The idea that

microbes are instrumental in promoting the germinative process is not entirely a new one, the author himself quoting Goodale (Physiological Botany) as saying: "It is said that in soil that has been completely sterilized, that is, freed from microbes or germs, seeds provided with all other requisites for germination will fail to sprout. These experiments by Duclaux have not been repeated by other observers." Thimer asks himself, Do these microbes, by working directly on the starch grains, transform them into soluble matter, or do they perform this indirectly by developing the ferments to digest the starch grains?

MEDICAL CHEMISTRY.

MERCURY SALTS AND IODINE COMPOUNDS.

The action of the light on mixtures of salts of mercury and compounds containing iodine have been more fully investigated by George Roe, the results of which he reported to the Chemists' Assistants' Association of London. The author finds that pretty nearly all the mercury salts are decomposed in the light by iodides and iodine compounds, such as iodoform, iodol and soziiodol, giving rise to scarlet discoloration, or, in a few instances, to the liberation of iodine. Green, blue or amber glass containers fail to arrest this action, so that such mixtures must be kept in absolute darkness.

IDENTITY REACTION OF PHENACETINE.

W. Autenrieth and O. Hinsberg have recently published a paper on phenacetine and certain of its derivatives in the *Archiv d'Pharmacie*, vol. ccxix., page 456, in which they first communicate a new identity reaction of the substance, and afterwards give the results of their investigation into the nature of the product of this reaction, and into its constitution. *Identity Reaction for Phenacetin.*—Upon 1 part of finely powdered phenacetin pour 2 parts of nitric acid containing 10 to 12 per cent. of HNO_3 (specific gravity about 1.075), and heat for a short time to boiling. The liquid will assume a yellow to orange color, and the phenacetin, which had at first remained colorless, will at the same time (so far as it is not dissolved) be

converted into a nitro compound of an intensely yellow color. When the liquid cools, a further crop of needles of the yellow (or brownish-red) compound crystallizes out. Antifebrin and antipyrine remain unaffected when treated in this manner. If concentrated nitric acid is used, however, antifebrin is colored yellowish-red, and antipyrine yields a red solution. The melting-point of the characteristic yellow derivative of phenacetin, which was subsequently recognized as *mononitrophenacetin*, or $\text{C}_8\text{H}_7\text{OC}_2\text{H}_5(4).\text{NO}_2(3).\text{NHCOCH}_3(1)$, is at about 103°C .

SOUTH AFRICAN ACACIA GUM.

The *Acacia horrida*, or "Doornboom," which yields a considerable part of the gum arabic brought upon the English market from South Africa, is one of the most widely distributed forms of vegetation in that part of the globe. A recent account of the economic products of German southwest Africa furnishes some particulars of the collection of the gum in the colony. The gum can only be gathered in the dry season, when the collection is much impeded by the want of drinking water and of laborers—the whole colony of German southwest Africa, a country as large as England and Wales, having only about 24,000 inhabitants. The value of the gum in the interior is about 50 per cent. of the price it realizes on the London market. The cost is increased by 20 per cent. by the transportation to the coast, by another 40 per cent. for carriage from the coast to Cape Town, and again by 40 per cent. for freight from that port to England. The bark of the tree is a valuable tanning material, hence the tree is frequently cut down altogether when its gum is collected.

SALICYLATE OF PHYSOSTIGMINE.

Chemical handbooks direct this salt to be made by dissolving 2 parts of physostigmine and 1 part of salicylic acid in 30 parts of boiling water, and to set the solution aside in a dark place so that crystals may form. There is this difficulty, however, that the free alkaloid physostigmine (or eserine) is exceedingly prone to be converted, under the influence of air and light, into rubeserine, which has a red color. Birkenwald advises (*Pharm. Zeitsch. f.*

Russell.) the following method by which the salicylate may be prepared in colorless crystals: Dissolve sulphate of physostigmine in water, add sodium bicarbonate in excess, shake with several portions of ether in a separator, and filter the united ethereal fractions into a beaker into which some ether containing the calculated quantity of salicylic acid had previously been put. The salicylate of physostigmine will separate in crystals, is then transferred to a filter, washed with ether, and dried in a dark place in vacuo.

NEWS AND MISCELLANY.

PRACTICAL TEACHING OF MIDWIFERY.

Additional provision has recently been made for the teaching of midwifery in connection with the University of Melbourne, Victoria. The University lecturer on diseases of women has been appointed an honorary medical officer of the Women's Hospital, and a ward in the midwifery department has been placed at his disposal. Further, a day has been fixed upon which he will see out-patients, and he has been allotted three beds in the infirmary department. It may be hoped that the arrangements for teaching the subject will be carried out on a thorough and, we may add, antiseptic system. The arrangements which were lately described in the "Notes on Paris Hospitals" in the *British Medical Journal*, at the Hôpital La Charité, and the installation for isolation and disinfection devised by Dr. Budin will serve as a recent and well-thought-out model. We understand that similar arrangements on a large scale are in progress at St. Mary's Hospital, London.—*Ex.*

FIRE-PROOFING FORMULÆ.

While it at present is impossible to make combustible materials absolutely fire-proof, yet it is practical to apply to them substances which will greatly retard their combustibility. The following formulæ will be found useful for curtains, theatrical scenery, decorations and other tissues that will absorb liquids. For light tissues: Ammonium sulphate, 16 pounds; ammonium carbonate, 5 pounds; sodium fiborate, 4 pounds; boric acid, 6 pounds; starch, 4 pounds (or either dextrin or gelatin, 1

pound); water, 25 gallons. The salts are dissolved in a part of the water, the starch or its substitutes in another portion by heat, and mixed; then the goods may be immersed in them, dried and calendered or ironed. For curtain materials, theatrical decorations, wood, furniture, use ammonium chloride, 30 pounds, in the same quantity of water, and add chalk of very fine quality to make a thin paint, and apply warm.—*Ex.*

A CURIOUS LAW SUIT.

A novel action for damages is reported to be pending somewhere in the German Empire under somewhat curious circumstances. A nurse allowed skin grafts to be snipped from her lily-white arm in deference to the wishes of the patient and the request of the surgeon. Unfortunately, the wound did not heal, as might have been anticipated, but proved the starting point of cellulitis, causing great suffering, permanent disfigurement, and some loss of function. The nurse consequently feels aggrieved, and claims damages from the surgeon, but the damages, if any, would seem to be due from the person on whose behalf the plaintiff consented to create the solutions of contumely in her cutaneous envelope.—*Med. Press.*

PASTEURISM AT MILAN.

On July 1st, 1889, a Pasteur institute was opened at Milan in connection with the Ospedale Maggiore, under the direction of Dr. Remo Segrè, who had studied the details of the method at Paris under the guidance of M. Pasteur himself. The report of the first two years of work done in the Milanese Institute, which has recently been published, shows that 238 patients have been treated during that time, of whom 108 were bitten by animals experimentally proven to be rabid, and 121 by animals certified to have been so by medical practitioners and veterinarians. Nine cases are returned as "doubtful." Besides these, 61 persons applied for treatment who were proved not to stand in need of it. Of the 238 patients treated, 4 died, 2 of whom belonged to the first class (in which the proof of rabies was experimental), and 2 to the second (in which the disease was proved by veterinary certificate). All the four cases died after the

completion of the treatment, two "a few," one 17, and one 63 days after it. In 232 cases the animal which inflicted the bite was a dog, in 6 a cat. Dr. Segrè uses a syringe of the capacity of $2\frac{1}{2}$ grammes, and employs a whole centimetre of medulla for each person to be inoculated, even in the case of young children. He thus obtains an emulsion of greater density, and therefore, he believes, "richer in curative principles and more active." In a total of 5,386 injections made on 238 persons, he has only twice seen the operation give rise to a small abscess.—*Brit. Med. Jour.*

SNAKE BITES.

Sir Joseph Fayrer, in a lecture at the Victoria Institute on "The Venomous Snakes of India and the Mortality Caused by Them," remarked that the chemistry of snake poison had been studied a good deal of late, and it was shown to be a most virulent poison, which might neither be sucked from a bite nor swallowed with impunity. Many antidotes had been reported beneficial, but experience showed that so far no physiological antidote to snake virus was known, and that when the full effect was produced remedies were of little avail. When, however, the poison had entered in smaller quantities, medical treatment might be of service. The cobra, the most formidable of the Indian snakes, was to be found all over Hindustan, and was equally dreaded and fatal wherever met with. There were many other species which were also most destructive to life—notably, the krait, the kupper, Russell's viper, the hamadryas, and the raj-samp. The mortality from snake bite in India was very great. The average loss of life during the eight years ending 1887 was 19,880 human beings and 2,100 head of cattle yearly. Throughout India in 1889 there were 22,480 human beings and 3,793 cattle killed by snakes, while 578,415 snakes were destroyed at a cost of 23,556 rupees. In 1890 there were 21,412 human beings and 3,948 cattle killed, while 510,650 snakes were destroyed at a cost of 19,004 rupees. The average result for all the provinces showed a mortality of one to every 10,155 of population in 1890, as

compared with one to every 9,673 in 1889. To reduce this annual loss of life, it was necessary to make known the appearance and habits of the poisonous snakes and to institute proper rewards for their destruction. Until some measures were more uniformly resorted to, there would be no material diminution in the loss of human life from snake-bite, which could not now be rated at less than 20,000 annually. It was satisfactory to find that the Government of India were insisting upon measures having for their object the destruction of snakes; but he feared that the proposal to cut down and clear away the jungle in the vicinity of villages could hardly be expected to produce the desired effect. He would suggest that a reward should be given for each poisonous snake killed.—*Brit. Med. Journ.*

SOCIETY MEETINGS DURING MAY.

Kentucky State Medical Society, May 1st, at Louisville; State Medical Society of Kansas, May 3d, at Fort Scott; Ohio State Medical Society, May 3d, at Cincinnati; Wisconsin State Medical Society, May 4th, at Milwaukee; Michigan State Medical Society, May 5th, at Flint; Nebraska State Medical Society, May 10th, at Omaha; Indiana State Medical Society, May 12th, at Indianapolis; Illinois State Medical Society, May 17th, at Vandalia; North Carolina State Medical Society, May 17th, at Wilmington; Medical Association of Missouri, May 17th, at Pertie Springs, Johnson Co.; State Medical Society of Pennsylvania, May 17th, at Harrisburg; Iowa State Medical Society, May 18th, at Des Moines; Connecticut State Medical Society, May 24th, at New Haven; Association of American Physicians, May 24th, at Washington, D. C.

ASSOCIATION OF AMERICAN INSTITUTIONS FOR IDIOTIC AND FEEBLE-MINDED PERSONS.

The sixteenth annual session will be held at the Pennsylvania Institution for Feeble-Minded children, Elwyn, Penn., (Dr. I. N. Kerlin, Supt.) commencing Tuesday, June 14th, 1892.